

# The Mining Journal

## RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1226.—Vol. XXIX.

LONDON, SATURDAY, FEBRUARY 19, 1859.

(STAMPED.....SIXPENCE.  
UNSTAMPED.....FIVEPENCE.)

**MR. JAMES CROFTS, SHAREBROKER,**  
No. 1, FINCH LANE, CORNHILL (established 15 years), having resolved to extend his business, begs to intimate that he BUYS and SELLS every description of BRITISH and FOREIGN STOCKS and SHARES, RAILWAYS, DOCKS, CANALS, and other securities, particularly BRITISH MINING SHARES, in which dividends are paid realising 15 to 20 per cent. per annum, with perfect freedom from any kind of risk; whilst speculative (or progressive) shares frequently yield large and immediate profits, in well bought. Advice given to capitalists by letter, or personally.  
Mr. Crofts refers the readers of the Journal to his weekly review of the market, on page 128. The present moment presents peculiar opportunities for investments on a large scale.  
Office hours, Ten to Five.  
A List of Forty British Mines now in full payment of dividends, and giving an average of 14 per cent. per annum, may be had of Mr. Crofts on application, and also a prospectus of Wheal Unity Consols.—No. 1, Finch-lane, Cornhill, London, E.C.

**MR. JAMES LANE, No. 29, THREADNEEDLE STREET, MINING SHARE DEALER.**  
**JAMES B. BRENCHLEY, of 19, TOKENHOUSE YARD, LONDON,** has FOR SALE the following SHARES, at net prices, viz.:—  
1 Bassett, £217½. 15 Hington Down, £4. 100 St. Day, 15s. 6d.  
2 Cargill, £13. 5 North Frances, £20½. 25 Treveltha, 6s.  
100 Cather. & Jane, 5s. 9d. 5 Bassett, £7. 30 Vale of Towry, 11s. 9d.  
1 Dolcoath. 2 Old Tolgus, £36. 5 West Fowey, £7½.  
5 East Treveltha. 5 Rosewarne & Herland. 50 West Par, 16s. 6d.  
10 East Russell. 10 South Ellen. 50 West Grenville, 30s.  
15 Penstruthal, £3. 25 Unity Consols. 2 West Caradon, £27½.  
Bankers: London and Westminster.

**MR. LELAND, 4, CUSHION COURT, OLD BROAD STREET, E.C.,** has the following SHARES FOR SALE, and recommends those marked thus (\*) as paying the greatest dividends, and those marked (†) for a rise in the market value in a very short time:—  
5 Alfred Consols. 45 Great South Tolgus. 150 Tolgus.  
1 Balfour. 100 Kelly Bray. 10 Trelawny.  
1 Balfour. 100 Lady Bertha. 15 Trelawny Consols.  
15 Balfour. 100 North Croft. 10 Tincroft.  
100 Brynall. 15 North Miners. 100 Unity.  
5 Calstock Consols. 10 North Levant. 35 Vale of Towry.  
35 Catherine and Jane. 10 North Dolcoath. 5 West Bassett.  
2 Carn Brea. 10 North Rosker. 100 West Par.  
14 Carnyorth. 100 Old Tolgus United. 1 West Caradon.  
25 Dale (E. paid). 50 South Cudham. 100 West Grenville.  
1 Dolcoath. 5 Par Consols. 1 Wheal Buller.  
15 Fing Dong. 5 Providence. 10 Wheal Charlotte.  
15 Fing Wals. 100 Rosewarne Consols. 10 Wheal Harriett.  
15 Fing Wals. 10 Rosewarne United. 10 Wheal Harriett.  
15 Fing Wals. 10 South Croft. 10 Wheal Harriett.  
2 East Bassett. 10 South Croft. 10 Wheal Harriett.  
10 East Russell. 10 South Croft. 10 Wheal Harriett.  
15 East Treveltha. 100 South Croft and West. 10 Wheal Harriett.  
10 East Rosewarne. 100 South Croft and West. 10 Wheal Harriett.  
20 Great Alfred. 100 South Croft and West. 10 Wheal Harriett.  
20 Granbier and St. Aub. 100 South Croft and West. 10 Wheal Harriett.  
50 Great Wheel Vor. 100 South Croft and West. 10 Wheal Harriett.  
20 Great Hwas. 100 South Croft and West. 10 Wheal Harriett.  
50 Great Hwas. 100 South Croft and West. 10 Wheal Harriett.  
All orders promptly attended to. Commission, 1½ per cent.

**DIVIDEND MINES**, well selected, are the BEST of all PUBLIC INVESTMENTS, paying, as they do (in dividends every two or three months), from 20 to 30 per cent. per annum. NON-DIVIDEND MINES, carefully chosen, frequently advance in price 500 per cent., or more.  
**PETER WATSON**, having 14 years' experience in every department of mining and its management, together with an extensive and regular correspondence with mining agents and others in Cornwall, Devon, and elsewhere, is enabled to judge of and select mines of intrinsic value.

**A SPECIAL REPORT (WEEKLY) WILL APPEAR IN PETER WATSON'S MINING CIRCULAR**, by his own Agents. ABRIDGED REPORTS will also be given, and important information on the present and future operations and prospects of mines throughout Cornwall and Devon, with advice thereon as to purchase or sale of shares.  
Those who desire to have copies regularly sent them will be supplied for an annual subscription of £1 1s., or 6d. per copy.  
English and Foreign Stock, Shares, and Mining Offices,  
3, Old Broad-street, London, E.C.

**NORTH ROSKER.—A SPECIAL REPORT** published in PETER WATSON'S WEEKLY CIRCULAR of yesterday.

**HINGTON DOWN.—A SPECIAL REPORT** will be published in PETER WATSON'S WEEKLY CIRCULAR next week.

**TINCROFT AND WHEAL GRYLLS.—SPECIAL REPORTS** are being made, and will be published in PETER WATSON'S WEEKLY MINING CIRCULAR AND SHARE LIST.

**THOMAS ROACH, MINING AGENT,**  
57, OLD BROAD STREET, E.C.

**HENRY GOULD SHARP, SHAREBROKER, & CO.,**  
33, FOLLY, LONDON, E.C. SHARES FOR POSITIVE SALE:—  
100 South Caradon Hooper. 90 Mollard (an offer). 90 Chollacott (an offer).  
200 Caradon & Sunde. 300 Lady Eliza (an offer). 5 Ding Dong.  
50 Consols (limited). 5 West Ellen. 100 Lady Bertha.  
50 West Ellen. 20 Wheal Harriett.  
P.S.—All buying and selling orders will receive prompt attention. Business transacted at the closest market prices. Commission, 1½ per cent.

**MINING SHARES FOR SALE, FOR IMMEDIATE CASH:—**  
10 St. Alfred, £2½. 50 Cather. & Jane, 5s. 9d. 20 Kelly Bray, £2½.  
50 St. Day United, 16s. 1 East Daren, £11½. 50 Dale (E. paid), 14s.  
50 Wheal Addams (call 1 Rosewarne, £72½. 1 East Bassett, £205.  
paid), 16s. 1 Granbier, £91½. 20 Tamar Consols, 31s. 3d.  
20 Holmeston, 17s. 6d. 10 South Condurow, 12s. 10 North Downs, £2½.  
50 Tolgus, 17s. 6d. 50 Lady Bertha, 13s. 6d. 10 North Downs, £2½.  
Apply to W. MICHELL, 3, Austin Friars, London, E.C.—February 18, 1859.

**FIFTEEN TO TWENTY, and even TWENTY-FIVE PER CENT. PER ANNUM** upon current value of shares, in CORNISH TIN and COPPER MINES.

**MR. R. TREDINNICK, MINING ENGINEER, SENDS** his SELECTED LIST OF SOUND PROGRESSIVE AND DIVIDEND SHARES, with a list of Cornish and Devon Mining Enterprises, 5s. per copy.  
Maps per post of the Buller and Bassett, Great Vor, Alfred Consols, the Providence and Margaret, South Caradon, and the Devon Great Consols Districts, 2s. 6d. each.  
Cornish Mines, well selected, pay better than any other description of securities, are free from risks, and entail less responsibilities than banks and other joint-stock companies. Shares bought and sold on commission of 2½ per cent.  
Money advanced at 10 per cent. annually, for short or long periods, upon approved Mining Shares.—4, Austin Friars, Old Broad-street, London, E.C.

**MONEY MARKET.—BRITISH AND FOREIGN FUNDS,** BANKS, INSURANCE, MINING AND RAILWAY SHAREHOLDERS, are respectfully informed that EVERY DESCRIPTION OF STOCK and SHARES continue to be BOUGHT and SOLD, either for cash or the account, at the market price of the day, through the medium of the Stock Exchange, by Messrs. FULLER AND CO., No. 61, THREADNEEDLE STREET, LONDON, who have entered their premises, thereby affording every facility for giving the hourly current price of stocks, &c. Country companies have prompt attention, and every information given to parties seeking investments. British mining shares range from 12½ to 20 per cent. Others, of a progressive character, frequently advance in price from 50 to 100 per cent. upon the outlay. The present period offers to capitalists an opportunity which cannot fail to remunerate all who invest.  
Office hours, from Ten till Five o'clock daily.  
Bankers: Sir J. W. Lubbock, Bart., Foster, and Co.

**NOTICE.—MINING OFFICES, CORN EXCHANGE, LEEDS.**  
**JOHN GLEDHILL AND CO'S MINING OFFICES** are REMOVED from 12, South Parade, to the CORN EXCHANGE. They beg to inform those who have money to invest that they have SEVERAL VALUABLE LEAD and COPPER MINING SETTS on hand, which they have personally inspected, and can fully recommend. Some of these sets are situated in Yorkshire, Cumberland, Northumberland, and Scotland. Arrangements can be made to work them either by private enterprise or as public companies, under the Joint-Stock Companies Act (Limited), 1856. J. GLEDHILL and Co. will be glad to afford full information to bona fide parties respecting any of the above sets, and to assist in forming and establishing companies to work them, if after investigation it is thought desirable. They have also SHARES FOR SALE in many of the PROGRESSIVE and DIVIDEND MINES.

**GEORGE MOORE, 1, CROWN COURT, THREADNEEDLE STREET, LONDON.**  
George Moore will sell the following SHARES, or any part, to-day, at quoted prices, FREE OF ANY COMMISSION:  
DIVIDEND.  
5 Wheal Edward, £2 9s. 9d. 1 Wheal Margaret, £25.  
NON-DIVIDEND.  
1 East Bassett, £210. 5 Great Alfred, £27½. 50 Wheal Unity (for immediate cash).  
FOR SALE.—1 Condurow (for immediate cash), under quoted prices.  
George Moore will sell shares for time, at a slight advance in price, to any one possessing a name of commercial value.  
PURCHASERS of undoubted respectability can register transfers and receive CERTIFICATES of same previous to PAYMENT.  
In any business that George Moore is favoured with, in which he is the buyer, he will give CASH ON RECEIPT OF TRANSFER.

**JAMES HERRON has FOR SALE the following SHARES, at the prices quoted, and FREE OF COMMISSION:—**  
50 Bedford Consols. 200 Lady Eliza, 4s. 20 Tamar Consols, 32s. 6d.  
10 Brynall, £10 18s. 9d. 20 Lewis. 10 Tincroft, £4 3s. 9d.  
25 Buller and Bassett. 25 Merilyn. 20 Tolgus, 17s. 9d.  
30 Boiling Well, 19s. 6d. 1 Miners, £119. 20 Treveltha, 6s. 10d.  
3 Carn Brea, £209½. 30 Marke Valley. 1 Trelawny, £32 17s. 6d.  
1 Cwmystwith. 20 North Downs, £2 17s. 6d. 3 Trelawny Consols.  
10 Colbre, £39½. 5 North Levant. 1 Wh. M. Ann, £47 18s. 6d.  
20 Cather. & Jane, 5s. 9d. 20 North Trelawny. 5 Wheal Margery, £29½.  
3 Dale. 4 North Bassett. 20 Wh. Edward, £2 1s. 9d.  
50 Denham Bridge, 2s. 10d. 5 North Rosker, £20½. 5 West Frances, £29½.  
1 Dev. Gt. Cons., £477½. 5 No. Frances, £27s. 6d. 1 West Seton.  
20 E. Gunnis Lake, 27s. 9d. 5 North Miners. 5 West Seton, £29½.  
5 East Russell. 5 Old Tolgus United. 10 Wheal Arthur.  
20 East Rosewarne, 10s. 9d. 1 Providence. 1 West Caradon, £209½.  
1 East Daren, £110. 20 Pedestal-down, 17s. 9d. 25 Wheal Addams, 11s. 9d.  
1 East Bassett, £210. 6 Par Consols, £10 18s. 9d. 1 Wh. Margaret, £27½.  
1 Granbier, £291½. 30 Redmoor, 4s. 6d. 60 Worthing, 8s. 10d.  
50 Gawton United, 9s. 9d. 30 Round Hill, 31s. 9d. 5 Wheal Kitty (Lelant), £12½.  
100 Great Badden, 1s. 9d. 5 South Bassett, £7 7s. 9d. 20 Wheal Crebor, 11s. 6d.  
50 Great Wh. Vor, 9s. 9d. 1 South Caradon. 20 Wheal Trelawny, 27s. 6d.  
20 Grenville, £1 18s. 9d. 40 Sorridge, 15s. 9d. 5 West Providence.  
20 Great Alfred, £2 16s. 9d. 20 St. John del Rey, £11½. 5 Wh. Charlotte, £19½.  
10 Great Hwas, 9s. 6d. 10 S. Carn Brea, £2 8s. 9d. 10 Wheal Ludcott.  
50 Great Sileah. 40 St. Day United, 15s. 9d. 5 West Alfred Consols.  
10 Hing. Down, £4 2s. 9d. 50 So. Condurow, 10s. 9d. 10 Wheal Unity.  
25 Holmeston. 40 South Buller and West. 50 Wheal Harriett, 9s. 9d.  
20 Kelly Bray, 40s. 9d. 1 Penstruthal.  
20 Lady Bertha, 13s. 9d.

And a BUYER of Trelawny, Wheal Margaret, Trelawny, Tamar Consols, North Rosker, Margery, Tincroft, Worthing, West Seton, West Caradon, Kitty (Lelant), Holmeston, Miners, Cwmystwith, Buller and Bassett United.  
2, Adam's-court, Old Broad-street, February 18, 1859.

**MESSRS. VIVIAN AND REYNOLDS, MINE AGENTS,**  
65, OLD BROAD STREET, LONDON, E.C.  
Messrs. VIVIAN and REYNOLDS are enabled, through the long experience of Mr. W. C. Vivian as an underground agent and manager of mines in Cornwall, and in various foreign countries, to afford information on most important mining districts; and to inspect and report on mines. They are also enabled, by the several years' acquaintance of Mr. J. Reynolds, jun., with the transactions of the London share market, to obtain every advantage for those who may want either to buy or sell mining or any other description of stock.  
Messrs. VIVIAN and REYNOLDS have daily information from the principal seats of mining, which is at the service of those who may honour them with their confidence.

**MR. C. POWELL, MINING SHAREBROKER,**  
2, SPREAD EAGLE COURT, FINCH LANE, LONDON, E.C.  
Terms of commission and daily closing prices of shares in dividend and progressive mines furnished on application. Office hours from Ten to Six.  
Bankers: City Bank, Finch-lane.

**MR. EDWARD COOKE, SHAREBROKER,**  
64, THREADNEEDLE STREET, has the following SHARES in the best DIVIDEND and PROGRESSIVE MINES FOR SALE, at the current price of the day:—  
DIVIDEND.  
1 Devon Great Consols. 1 South Frances. 3 Wheal Mary Ann.  
1 Wheal Buller. 1 West Seton. 1 Trelawny.  
1 East Bassett. 2 West Caradon. 5 Great South Tolgus.  
PROGRESSIVE.  
2 Rosewarne. 5 North Miners. 50 Wheal Addams.  
10 Tolgus. 50 Catherine & Jane Cons. 10 East Wheal Russell.  
5 West Fowey. 10 North Granbier. 50 South Caradon Wheal.  
50 Vale of Towry. 5 North Rosker. Hooper.  
Feb. 11, 1859. Bankers: Commercial Bank, Lothbury.

**ROBERT OLDREY, STOCK, SHARE, AND MINING BROKER,** 8, FINCH LANE (adjoining the City Bank), LONDON, E.C.  
Terms of commission for buying or selling shares in mines, railways, or banks, forwarded on application. Bankers: London Joint-Stock Bank.

**MR. R. LINTHORNE, ENGLISH AND FOREIGN MINING AGENT,** 3, ADAM'S COURT, OLD BROAD STREET, LONDON.  
N.B. Business transacted in every description of stock and shares.

**MR. REGINALD HOBLEY, SWORN STOCK AND SHAREBROKER,** 2, ROYAL EXCHANGE BUILDINGS, E.C., TRANSACTS BUSINESS IN MINING SHARES on commission. Mr. Hobley still adheres to his list of shares recommended, and calls particular attention to West Bassett, which is likely to improve considerably. The following shares have advanced:—South Caradon close £450; East Russell, £10; East Bassett, £200; West Wheal Seton, £380, ex div.; Carn Brea, £70; Providence, £75; Wheal Margaret, £82; Wheal Kitty (Lelant), £11½; St. Ives Consols, £75; Rosewarne United, £67½.

**MR. J. T. KEVERN'S MINING, LOAN, AND DISCOUNT OFFICES, PENZANCE.**  
Established 1848.  
Bankers (from 1858)—Messrs. Batten, Carne, and Carne.

**MR. M. S. RICHARDS, BRITISH AND FOREIGN STOCK, RAILWAY, AND MINING SHAREBROKER,** No. 37, AUSTIN FRIARS, LONDON, E.C., has the undermentioned MINING SHARES FOR DISPOSAL, or any part thereof, at the very lowest market prices, for cash on delivery of transfer:—  
1 East Bassett. 50 Vale of Towry. 25 Sorridge Consols.  
1 South Wheal Frances. 10 Ludcott. 10 Calstock Consols.  
1 Providence. 1 Rosewarne United. 10 East Providence.  
25 Great Hwas. 20 North Robert. 20 North Trelawny.  
10 Wheal Trelawny. 60 Gawton. 10 East Falmouth.  
20 Kelly Bray. 20 Wheal Arthur. 25 West Sidney.  
10 Lady Bertha. 20 Wheal Wrey. 25 Tolgus.  
10 East Russell. 25 Tavy Consols. 5 Wheal Addams.  
10 Hington Down. 10 East Treveltha. 1 Wheal Bassett.  
WANTED, 2 Devon Great Consols.

Mr. RICHARDS, in introducing himself to the holders of stock of the above description, as a sharebroker, begs most respectfully to solicit a share of public patronage, and for so doing his charges will be 1½ per cent. on all stock bought and sold up to 1000, in value; above that sum 1 per cent. per share will be charged.  
Mr. RICHARDS undertakes to furnish full particulars of all business done, and guarantees to render a faithful account, and at net prices. In order the more effectually to assist his clients in the country in their selection of stock, which will be from time to time advertised for sale, he intends establishing a rule not to dispose of any advertised stock until after Tuesday morning's post, and should there be more than one claimant for any particular lot it will be offered pro rata, to each party desirous of purchasing.  
Mr. RICHARDS also begs to remind his friends that he has secured the services of a thoroughly practical mining agent (of 30 years' experience) to report for him on such mines as his clients may be disposed to invest in, for which a mere nominal sum will be charged, and which Mr. RICHARDS considers very advisable to adopt before he ventures to recommend his friends to purchase, either in dividend or progressive mines.  
All letters or communications addressed to Mr. M. S. RICHARDS, 37, Austin Friars, London, will receive immediate attention.—Dated February 18, 1859.

**MESSRS. A. J. HUTCHINGS AND CO'S PATENT IMPROVED WIRE ROPE.**  
SOLE MAKERS TO THE LORDS OF THE ADMIRALTY, THE FRENCH AND TURKISH GOVERNMENTS, And the principal Courts, Provinces throughout the Kingdom.  
MANUFACTORY, MILL WALL, POPLAR, LONDON.  
ROUND and FLAT ROPES of every description, suitable for mining operations or other purposes, GALVANISED or UNGALVANISED, MANUFACTURED upon the newest and most improved machinery, ensuring greater pliability, durability, and strength; and is admitted by the principal coal proprietors to be far superior to any other kind of wire rope. The superiority of these ropes over hempen ones, in point of strength, lightness, durability, and cost, is admitted by all who have tried them.  
GUIDE ROPES, SIGNAL CORD LIGHTNING CONDUCTORS, &c.

**MR. T. P. THOMAS, MINING AUCTIONEER,**  
2, CROWN COURT, THREADNEEDLE STREET, LONDON.

**MR. T. E. W. THOMAS, MINING AGENT AND GENERAL MINING SHARE DEALER,** 11, DALE STREET, LIVERPOOL.

**MR. JOHN ANTHONY, MINING ENGINEER.**  
ESTIMATES AND SPECIFICATIONS FOR ALL KINDS OF MACHINERY PREPARED.  
11, ARUNDEL CRESCENT, PLYMOUTH.

**GOODCHAP, TYLER, AND BROOKS,**  
PUBLIC ACCOUNTANTS, AUDITORS, AND ARBITRATORS,  
13, GRESHAM STREET, E.C. (corner of King-street).  
The accounts of public companies and private firms audited and periodically balanced by contract. Partnerships and the transfer of businesses negotiated.

**MR. RICHARD HUGO, SHARE DEALER, CAMBORNE,**  
CORNWALL, is a BUYER of Calvadnock, Stray Park, West Stray Park, Camborne Venn, Margaret, Kitty (Lelant), Rosewarne, Trevolls, and Rosewarne and Herland Mines. Parties offering shares state lowest price at once.—Camborne, Feb. 17, 1859.

**FOR SALE**, and for which no reasonable offer will be refused, FIFTY WHEAL CREBOR SHARES, adjoining East Wheal Russell Mine. Apply to Mr. W. PALMER, 115, Long-acre.

**TWENTY PAID-UP GREAT CARADON AND SLADE CONSOLS (LIMITED) FOR SALE.** The shares in this valuable mine have, during the last six months, advanced upwards of 200 per cent., and a further advance is daily expected.—For price, &c., apply to Mr. ECKY, Mrs. Bingham, stationer, Bristol.

**RIDEN COPPER MINE (LIMITED).—WANTED TO PURCHASE** SEVERAL HUNDRED SHARES in this company.—State number and lowest price to "A.B.," 40, Fleet-street, London.

**WANTED, TWO THOUSAND POUNDS IMMEDIATELY**, on security of freehold land, &c., of ample value, and within eight hours' ride of London.—Address, "G.W.," Mining Journal office, 26, Fleet-street, London, E.C.

**TO MINE CAPTAINS.—WANTED**, one who speaks the Welsh language, to TAKE THE MANAGEMENT of a COPPER MINE in WALES, and who can produce satisfactory testimonials as to his competency.—Address, "B.," Mining Journal office, 26, Fleet-street, E.C.

**TO LEAD SMELTERS.—WANTED**, under a manager, an experienced and competent man, of good character, as FOREMAN.—Apply by letter, stating terms and names of previous employers, addressed "V.D.B.," Fogg, Liverpool.

**TRAVELLER WANTED**, to take regular journeys through the COLLIERY and MINING DISTRICTS, for the SALE of WIRE ROPE and COLLIERY STORES. All applications to be accompanied with full particulars of previous engagements, references, &c. Security will be required.—Address, "N.," Mining Journal office, 26, Fleet-street, London, E.C.

**TO ASSAYERS AND METALLURGICAL CHEMISTS.—TO BE DISPOSED OF**, the HALF or ENTIRE INTEREST in an OLD ESTABLISHED and LUCRATIVE ASSAYING BUSINESS in SOUTH AMERICA.—Address, "A.B.," Mitchell and Rickard's assay office, Dunning's-alley, Bishopsgate-street Without, E.C.

**CORNISH ORES.—The ADVERTISER is OPEN to PURCHASE** ANY QUANTITY OF SULPHUR ORE, IRON ORE, &c.—Applications, stating analysis, price, and quantity, addressed "F.F.," care of Messrs. Kennedy and Watson, stationers, &c., 16, Brown-street, Manchester.

**WANTED TO PURCHASE**, a STATIONARY ENGINE, of 20 horse power, for the purpose of draining a mine in Devon.—Particulars and lowest price to Mr. JAMES G. SMITH, Falcon-court, 32, Fleet-street, E.C.

**SECOND-HAND CONTRACTORS' RAILS.—WANTED**, a QUANTITY OF FLANGE PATTERN, THIRTY-FIVE TO FORTY POUNDS PER YARD, delivered at a port on the south or west coast.—LAWRIE and HUGGER, 33, Lombard-street, E.C.

**PUMPS WANTED.—WANTED**, a QUANTITY OF SECOND-HAND CAST-IRON FLANGE PIPES, about 15 in. diameter, with or without working barrel, windrods, &c.—Application to be made to B. T. CHAMBERS, Plinton, near Alfreton, Derbyshire.

**MR. R. LANCASTER'S PATENT** for an IMPROVED MODE of VENTILATING COAL and OTHER MINES, by the application of hot air from the surface into the upcast shaft, by means of a small blast engine and heating apparatus, similar in principle to those in use at iron smelting furnaces, thus dispensing with the use of the ordinary furnace, with its fire and flame, in the workings. It is simple in construction, safe in application, unlimited in power, and economical in use.—Terms and particulars may be known on application to the undersigned, who may be also consulted on the working and ventilating of collieries in general.—Address, R. and S. LANCASTER, mining engineers and viewers, Orrell, near Wigan.

**ROBERT MUSHET'S ORE BLOOM STEEL, COMBINING** ALL THE EXCELLENCIES OF CAST and SHEAR STEEL, WITHOUT ANY OF THEIR DEFECTS. For all purposes to which steel can be applied, it is TWICE as DURABLE as the BEST SHEETFIELD CAST-STEEL at 3s. per cwt., and it requires no caution in tempering. Price, drawn to size, 70s. per cwt.—Apply to ROBERT MUSHET and Co., Coleford, near Gloucester.

**THE MIDLAND IRON COMPANY, ROTHERHAM, YORKSHIRE,** MANUFACTURERS OF RAILWAY TYRES and AXLES FOR LOCOMOTIVE ENGINES, CARRIAGE and WAGON WHEELS. From the tests to which this iron has been submitted by engineers and railway companies during several years, its superior quality has been generally acknowledged, and can be unhesitatingly affirmed.

**MR. MURCHISON'S REVIEW OF BRITISH MINING** FOR THE QUARTER and the YEAR ENDING 31st DECEMBER, 1858, with Particulars of the Principal Dividend and Progressive Mines, and Table of the dividends Paid in the past Four Years, is NOW READY.  
Price One Shilling. At 117, Bishopsgate-street Within, E.C.

**SPECIAL REPORTS** on these MINES, by Captain CHARLES THOMAS, of Dolcoath, APPEAR in MR. MURCHISON'S REVIEW OF THE PROGRESS OF BRITISH MINING for the QUARTER and the YEAR ENDING 31st DECEMBER, 1858, which is NOW READY.  
Price One Shilling. 117, Bishopsgate-street Within, E.C.

**SPECIAL REPORTS** on these MINES, by Captain PASCOE, of South Wheal Frances, APPEAR in MR. MURCHISON'S REVIEW OF THE PROGRESS OF BRITISH MINING for the QUARTER and the YEAR ENDING 31st DECEMBER, 1858, which is NOW READY.  
Price One Shilling. 117, Bishopsgate-street Within, E.C.

**SPECIAL REPORTS** on these MINES, by Captain POPE, of St. Bassett, APPEAR in MR. MURCHISON'S REVIEW OF THE PROGRESS OF BRITISH MINING for the QUARTER and the YEAR ENDING 31st DECEMBER, 1858, which is NOW READY.  
Price One Shilling. 117, Bishopsgate-street Within, E.C.

**WHEAL ADDAMS.—A SPECIAL REPORT** on this MINE, by Capt. NICHOLS, of Frank Mills Mine, APPEARS in MR. MURCHISON'S REVIEW OF THE PROGRESS OF BRITISH MINING for the QUARTER and the YEAR ENDING 31st DECEMBER, 1858, which is NOW READY.  
Price One Shilling. 117, Bishopsgate-street Within, E.C.

**EAST WHEAL RUSSELL.—A SECTION OF THE UNDERGROUND WORKINGS** of this mine is GIVEN in MR. MURCHISON'S REVIEW OF THE PROGRESS OF BRITISH MINING for the QUARTER and the YEAR ENDING 31st DECEMBER, 1858, which is NOW READY.  
Price One Shilling. At 117, Bishopsgate-street Within, E.C.

**LADY BERTHA MINE.—TWO REPORTS** on this mine APPEAR in the SECOND EDITION of MR. MURCHISON'S REVIEW for 1858, JUST PUBLISHED.  
Price One Shilling. 117, Bishopsgate-street Within, E.C.



**BRICKS.**—Messrs. OATES and INGRAM inform brick makers on an extensive scale that their PATENT SOLID BRICK MACHINE is now THOROUGHLY and EFFICIENTLY TESTED, and are prepared to OFFER the following counties to the trade, in districts, either by ROYALTY or PURCHASE:—Middlesex, Surrey, Sussex, Kent, Norfolk, Suffolk, Cambridge, Oxford, Gloucester, Hertford, Berks, Bucks, Huntingdon, Devon, Cornwall, Dorset, Wilts, Hants, and Isle of Wight.

With this PATENT MACHINE the ordinary surface clay requires no preparation whatever, whilst that of a rocky nature has merely to be passed through rollers in the usual way, and thence, WITHOUT ANY TEMPERING, INTO THE MACHINE, FROM WHICH THE BRICKS ARE REMOVED DIRECT TO THE SILENCE OF A STATE READY FOR BURNING.

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## Original Correspondence.

### ALLOYS OF ALUMINIUM AND IRON.

SIR,—Much has recently been stated in the Journal with respect to the economical production of *aluminium* and its alloy with other metals; permit me, therefore, to make a few observations on those subjects, but particularly as regards the alloy of aluminium and iron. At page 15 of my "Metallurgy" occurs an account of this alloy, which claims serious attention from all iron smelters and makers who may wish to improve their manufactures—"By fusing highly carburetted steel with *aluminium* a peculiar alloy results, which in fracture is white, granular, and brittle, and which on analysis gives 64 per cent. of *aluminium*. On melting 67 parts of this alloy with 500 of steel, a compound was obtained containing about 8 per cent. of *aluminium*, and which possessed all the characters of the best *Bombay rootz steel*; and, like it, when its surface is polished and washed over with dilute sulphuric acid, exhibits the striated and wavy appearance called *damask*, for which the celebrated sabres of Damascus are remarkable, and which renders it probable that those kinds of sabres are made of *rootz*." There is much in this paragraph entitled to the best consideration of ironmasters generally, but to the steel manufacturers of Birmingham and Sheffield more particularly.

Steel alloyed with *aluminium* in very small quantities is found to communicate to it great hardness, strength, and body, and consequently density, without in the slightest degree injuring its homogeneity, or impairing its susceptibility of receiving a good polish. Mr. C. Sanderson remarked, in a paper read at a meeting of the Society of Arts a few months ago, that some specimens of steel recently made by Sir Charles Knowles, "possessed greater density than any samples of that article which ever came under his (Mr. Sanderson's) observation." This is in full corroboration of the principle that *aluminium* in combination with steel greatly improves its quality, and augments its density; for in the manufacture of steel by the process adopted by Sir C. Knowles, *aluminium*, under the name of *kaolin*, is admitted to be an essential ingredient for its production. Steel makers, like iron makers, would, therefore, appear to be "ever learning, without arriving at a knowledge of the truth;" for so long ago as the year 1818 I demonstrated and communicated to the ironmasters of Monmouthshire and South Wales the existence of very considerable portions of both *aluminium* and *silicium* in their best make of pig-iron—particularly in the pigs made at *Beaufort* (formerly called "furnace Kendal") and *Blaenavon*. 3, Depot-street, Newport, Mon., Feb. 15. S. B. ROGERS.

### NORTHAMPTONSHIRE IRON ORE—IRON CINDER OR SLAG.

SIR,—In confirmation of my former letters, allow me to call the attention of your readers who feel interested in the Northamptonshire iron ore to the following extract from Mr. Rogers's "Treatise on Iron Metallurgy," p. 169, published in 1857:—"The cinder or slag may, if in a clear and fluid state, be converted into a variety of utensils and ornaments, either of a glassy or porcelainous texture; but all attempts to do so to any extent have hitherto failed, not, I believe, from any defect in the quality of the cinder, but principally from the inconvenience it would occasion in cast-houses and foundries of the present construction, and from the want of a demand for anything like the quantity that could be made of the results alluded to. A furnace making 80 tons of good grey iron per week would turn out at least 160 tons of cinder,—a quantity of material sufficient to manufacture one thousand gross of quart bottles, and to occupy the labour and skill of from 60 to 80 glassblowers for 24 hours of the day the whole week. There can, however, be no question but that a great variety of utensils, ornaments, and building materials, such as pavings, pans, columns, cisterns, troughs, and even sheets of glass for roofs and other purposes, may be advantageously formed of the residuums of an iron smelting furnace."—*Blisworth, Feb. 14.* W. G. ELLIOTT.

### IMPROVEMENTS IN THE VENTILATING OF COAL MINES.

SIR,—I observe a letter on this subject in the Journal of Feb. 5, written by a gentleman who subscribes himself "A Viewer and Mining Engineer." This gentleman must excuse us when we state our opinion that he is most lamentably ignorant of the principle of furnace ventilation, and indeed of all ventilation. He states "that it is inconsistent to employ safety-lamps, while an open light (*alias* the furnace) is kept burning in the most dangerous part of the workings." Now, the furnace is not placed in the workings at all, but at the bottom of the upcast shaft; and it is well known that where the air currents are properly divided and distributed in the mine, let that mine be the most fiery the world ever saw, and the use of safety-lamps necessary both in the whole mine and broken workings, yet the return air at the furnace will be perfectly safe and harmless. The most extensive practice fully proves this, and it can be easily shown theoretically. We shall merely give a few brief hints, as concise as possible. We will take a colliery of moderate size, divided into six districts, producing 60 tons per district, equal to 360 tons per day. Now, each of those districts is ventilated by a distinct current of air, of 9000 cubic feet per minute, making a total of 54,000 cubic feet of air per minute. We have, therefore, 54,000 cubic feet of air per minute passing from the downcast shaft, and afterwards divided into separate currents, and passing into the respective districts. Now, all those currents of air join again at least 300 yards before reaching the furnace, some of them have joined perhaps at a distance of 900 yards from the furnace; and as even those separate currents at the point where they emerge into the main return will rarely be near the explosive point, while others are almost clean, or charged with carbonic acid, &c., and at all doors a little fresh air escapes; consequently the return air at the furnace is perfectly safe and harmless. This is a matter of everyday experience, and under those circumstances it will rarely indeed occur that any danger need be apprehended at the furnace; but should this occur, it is easy to allow a portion of fresh air to pass into the return at a point of, say, 200 yards from the furnace, which will make it safe. A great outcry was raised respecting the furnace at Lund Hill. This, however, need excite no surprise, as there the goafs were formed in a reckless manner, in the most dangerous proximity to it.

We do not make these remarks as one wedded to the furnace. We agree with the writer that many objections may be urged against it. We merely aim at correcting what we conceive to be gross errors.

AN OLD PITMAN.

### IMPROVED MODE OF VENTILATING COAL MINES.

SIR,—Having read in your Journal of Feb. 5 a letter from Mr. Lancaster, on an "Improved Method of Ventilating Coal Mines," I send you a copy of the *Engineer* of Feb. 5, 1858, containing a letter written by myself, and signed "Caloric," wherein I propose the same method of ventilating mines, by means of atmospheric air heated on the surface to a high temperature, and forced into many parts of the upcast shaft. I shall feel obliged if you will insert this, together with the letter signed "Caloric," in your next Journal.

WILLIAM HOWE,

Clay Cross, near Chesterfield, Feb. 10. Engineer to the Clay Cross Co.

### MINE VENTILATION.

SIR,—As mine ventilation is of such great importance, both as regards the safety of the miners and to those who invest their capital in coal mines, I take the liberty of proposing a new method of heating the air in the upcast shafts, where metal tubing is used, without the aid of a furnace at the bottom of the shaft, and consequently avoiding all smoke (which is very injurious to the tubing) from ever entering the shaft. It is a well-known fact, where metal tubing is used in upcast shafts, that both the tubing and all other iron-work in such shafts is liable to rapid deterioration in consequence of smoke and water coming in contact with the tubing and ironwork, and turning the whole into a sort of plumage, and softening it to such an extent that the tubing may easily be cut with a knife or bored with a cheese trier; and this is the case (very often) in the course of ten or twelve years, and even sooner where a large furnace must be kept on to cause an efficient ventilation. The dense volumes of smoke filling the shaft must also tend to impede the air in its upward course. In such cases the tubing has not only to be renewed at a very great cost, but the proper ventilation is actually endangered, as when the tubing begins to fall everybody is anxious to make it last as long as possible, and on this account the danger is increased, as a single plate, or part of a plate, giving way, a great quantity of water under great pressure is instantaneously liberated, and the ventilation of the pit is in consequence reversed; the result of which is fearful to think of, as the air would partially become stagnant, and in an atmosphere highly charged with carburetted hydrogen gas an explosion would be likely to take place. As I have been engaged practically in putting in metal tubing and keeping it in repair for several years, I venture to make the above remarks. I may state that I have twice been engaged in renewing metal tubing destroyed by the smoke and injurious gases acting with the drippings of water on it. In the first case the tubing was lined with an inner ring of metal tubing, consequently the shaft was reduced in size, and this was a serious matter, as the shaft previous to lining was too small. In the second case there was not so much water behind the tubing, and we took the old out and entirely renewed it. In both cases the tubing had got very bad, and frequently burst, and had to be repaired hurriedly, which was, however, done without accident, except the stoppage of the pit for a time. To give some idea to those unacquainted with the injurious action of smoke and water on iron in such shafts, I may state that I have seen galvanised iron wire used as signals, the same size as telegraph wire, completely eaten through in a month; iron bolts to fix the conductors in the shaft go as rapidly; even  $\frac{1}{2}$  in. copper bolts will not last a great length of time; galvanised twisted wire signals cords very soon go; and I have tried copper signal wire with as little success. Ultimately I was obliged to take the signal wires up

the downcast shaft, and there they will last until they are worn away by friction in passing through the guide staples. If this damaging effect of smoke on upcast shafts could be avoided by any means at a reasonable first cost, the tubing preserved, and an efficient ventilation kept up without incurring a continually increasing expenditure, it would be desirable to do so. The plan I would propose is to place a hot-air stove at or near the top of the upcast pit. The stove would be similar to those used at hot-blast furnaces. From this stove I would carry a length of pipes down one side of the shaft, and close it at the bottom end. On this length of pipes I would cast several small branches turning upwards, those near the top of the shaft would have to be small in dimensions compared with the others below, so that the great bulk of the heated air would be conducted nearly to the bottom of the shaft, and the branches above would be discharging a small quantity of heated air, to keep the temperature of the shaft more equal. The whole of these branches with an upward discharge of heated air would give an impetus to the current of return air, and act partially on the principle of the steam-jet. A steam-engine of small power would be required to force the air through the heater, down the pipe, and out of the small branches into the shaft. Either a cylinder or fan might be employed for this purpose. There would be no difficulty in heating 3000 or 4000 cubic feet of air per minute to a temperature of 300 or 400 degrees. And if this intermingling of the return air from the mine would heat the shaft to 150 degrees, in most cases there would be an excellent ventilation. A pyrometer might be attached to the heater, and this would clearly show whether the man in charge of the engine and heater was doing his duty. There would be no dumb drifts required, as the air returning from the workings could not possibly come in contact with fire or anything to ignite it; the shaft would be quite clear, and never choked with dense smoke. No smoke could come in contact with the tubing, and, consequently, no chemical change could take place in any part of the shaft where iron is used. I write this to invite discussion, and trust that some of your intelligent readers, practically acquainted with mine ventilation, will give their opinions. No doubt, where there is no tubing or other ironwork in the shaft to get injured, a furnace is the most economical and safe mode of ventilation. CALORIC.

### THE GOVERNMENT AND THE MINER.—No. I.

SIR,—The great destruction of human life, and of valuable mine property, through the incompetency and carelessness of the directors and managers of mines in many parts of this country has very properly, and not before time, found a place amongst some of the gravest questions for the solicitude and assiduous consideration of both Government and people. The Mine Inspection Act has now had a fair trial, and the results are patent to all who are accustomed to read your valuable Journal, or who are in any way connected with the collieries comprised by the respective districts under inspection. The Inspectors themselves seem quite aware that something more must be done than what they have hitherto been able to accomplish, and, perhaps, we are yet to be favoured with some long useful and practicable as the product of their recent meeting at Harrogate. They are certainly in the very best position for acquiring that kind and amount of information respecting the condition and working of coal mines, and the educational and moral character, generally, of the managers and overmen, which is best calculated to lead to the suggestion of some more efficient means for the prevention of those sad accidents in mines, of which we have lately heard, with alas! such fearful and lamentable frequency.

The responsibilities of colliery managers are weighty and serious, but those of the mine inspector are, if possible, more so. The duty imposed upon the Inspector by his Sovereign is to lessen the fearful amount of accidents in mines by inducing a more careful and intelligent attention on the part of managers and directors to the sanitary and safe condition of the collieries under their charge, and to point out to them such defects in the machinery and working of the mines as are liable to lead to serious accidents. I am persuaded that in too many cases the Inspector either loses sight of his own responsibility, or contents himself with the belief that he has done his duty entirely by a two or three hours' inspection of the colliery, and a kind of formal letter to the manager, as a memorial of his visit, and a timid reference to "two or three things which in his opinion ought to be observed." Now, what in the name of common sense and humanity is the duty of the Inspector in such cases of imminent danger as must have been apparent at most of the collieries where there has recently been such shameful wholesale slaughter of human life? The answer is plain, and would be given by any moderate specimen of humanity. He ought not to allow one day—no, if possible, not one hour—to pass till the danger has been removed. Does he lack the means or power of doing this? Or, if so, may he not obtain it? Dare he doubt that the English nation would refuse him such means or power, or refuse to exercise the power they have for remedying such a fearful evil when he has pointed it out to them? One very productive source of the inefficient and reckless mode of working coal mines, and of the consequent loss of life, is ignorance on the part of the managers and under-agents of the veriest elements of such a knowledge of what may be termed "mining science," as is almost essential to the safe and economic management of subterranean works. The absence of this source of evil in most parts of the counties of Northumberland and Durham is the grand reason of the safety and economy in their mining works. I sincerely trust that those who are attempting to provide overmen, bailiffs, and other underground managers of collieries with a cheap and suitable education may meet with that success which they most assuredly deserve, and that they may add to their numbers in the carrying out of such an important and necessary work. If the Inspectors are not doing their very best in this matter, they would do well to devote a little more attention to it. Some useful reports from colliery districts will be laid before the lately-appointed Commissioners on Education, and I earnestly hope that increased attention to this by the Government may be the result. VIGILANCE.

### BRITISH MINING.—No. I.

SIR,—Perhaps at no period has British Mining presented prospects of such lucrative results to the capitalist and investor as at present. True it is metals have been higher, but then labour and materials were also dearer; therefore, comparison with those times will show that profits are actually greater than hitherto known. British Mining is a wonder even to those who know what mining is; its profits are unequalled; and if we look through the various investments and schemes which England can boast, it will be found that mining, selected by the capitalist with discretion, will surpass all. Glancing at some of the principal districts in Cornwall, we may direct attention to the first tin district in the world—Lelant. Here, within a circumference of 2 or 3 miles, lies an amount of wealth as almost to baffle belief. In this district are the celebrated Providence and Margaret Mines, which, although comparatively in their infancy, pay handsome profits to the investors. In the same district is also situated Wheal Mary, Wheal Kitty, and Lelant Consols; the former, on 361 paid, has given 2481 per share, and every prospect of continuing good dividends for years. Wheal Kitty, although only paid 61 per share in dividends, yet may be considered an investment of unusual prospects. Lelant Consols has never attained that success to which the district and the perseverance of the shareholders are entitled; the workings are now down to within a few feet of the depth where Wheal Margaret lodes were found so productive, and being so near Wheals Margaret and Kitty, good results may be soon anticipated: 291 per share, or nearly 30,000l., have been expended in the exploring the lodes.

Turning to the Camborne and Redruth districts, we find the richest copper district in England, and, perhaps, in the world. Numerous mines could be cited where, on a mere nominal outlay, vast amounts of profits have been made; and although a marked decrease in the returns of some of these large mines is visible, yet others are taking up a position which ultimately show themselves no unworthy successors. Amongst this class East Basset, Great South Tolgus, and West Basset, are opening out first-class mines; whilst Old Tolgus, Buller and Basset, and North Francis will ultimately rank as first-class dividend mines: present prospects warrant this assertion, the district is second to none, and being surrounded by mines rich in metal, time and perseverance will enable shareholders to realise expectations.

From this district we meet with no mine of particular importance until we reach Liskeard. A little to the east of this town we find a group of lead mines, Mary Ann and Trelawny being the best, and the rich quality of the ore enabling dividends to be paid at the rate of 20 per cent.; the reserves are large, and a continuation of dividends equal to the present may be fairly anticipated. Looking towards the Caradon Hills, the eye may rest on a cluster of copper mines. Of this group, South Caradon stands the first; the deposits of metal are immense, and the quality very rich. This is one of the greatest successes in mining; with an outlay of only 21. 10s. per share, dividends to the amount of 5561 per share have been paid, and every prospect of a continuation for years. To Capt. Peter Clymo, of Liskeard, the mining interest is indebted for this great success. West Caradon has not equalled her neighbour; but, perhaps, a few months will again place her in a good position. Craddock Moor and Gonnemena are yet in their infancy; the former is paying bi-monthly dividends; and the latter, although in 1852 it paid 7s. 6d. per share, yet since that time has discontinued dividends; the prospects, however, are more cheering, and no more calls will be necessary for a long time, and discoveries may very soon be made, which will considerably enhance the value of this property.

And now I ask, to what cause must we ascribe all these successes, and how has British Mining been represented? It has had no Member in Parliament who has fairly supported it; but it has had one who has attempted



impose a tax on its spirited promoters. To whom, then, is the Mining interest indebted? I emphatically say to the MINING JOURNAL. The promoters of that industry and investment which, till very recently, was scarcely known without the precincts of Devon and Cornwall, and Heres-passage, London, but developed by the increasing efforts of that journal, aided by such men as HUNT, WATSON, MURCHISON, and others, could name, British Mining has progressed to a degree almost unparalleled; and capitalists, who a short time since regarded mining with an aversion, are now the men who support it. Thus, with a good price for metals, and with an increasing consumption, the mining community may look forward to still better times.—Feb. 17.

W. P.

## MINING TESTIMONIAL.—MR. ROBERT HUNT, F.R.S.

SIR,—It is a source of the highest satisfaction to me to see by the various letters in your Journal, and to hear from private sources of information, that the labours of the talented and energetic Keeper of Mining records in the Museum of Practical Geology are so generally appreciated as to give rise to the idea of presenting him with some mark of public honour. I think there can scarcely be found a man interested in mining, who has watched the progress of the Mineral Statistics, who will not be ready to subscribe his mite towards an acknowledgment of services so decidedly valuable to this branch of our national industry; and I feel confident that it is only for the movers to form a committee, and place the subject properly before the mining public, to ensure a successful result.

It must be remembered that, although Mr. Hunt holds office in a Government establishment, he is not armed with any Government authority for obtaining the great mass of information which he publishes. It is entirely due to his own tact and judgment, and his untiring perseverance, that we now possess a really valuable account of the mineral produce of this country; and it would be a fitting compliment to the author for those most interested to present him with a substantial mark of their esteem.

A MINING ADVENTURER.

## THE PORT PHILLIP GOLD COMPANY.

SIR,—Mr. Bland's letter in the *Mining Journal* will not induce me to open the discussion on the past proceedings of this company. In my last letter, about six months ago, I stated that it was to be hoped that the company would ultimately be properly established, and derive some benefit from pushing the rich out-crops of quartz and slates at Clunes. Had Mr. Bland been sent out simply as a superintendent, and not as a resident director, and placed under the same restrictions as other agents, about 50,000*l.* of the company's capital would have remained intact until the colony was in a state to grant leases to public companies, and the profits from the selling offices would have also been saved. But being sent out as a resident director, and left to do what he liked, he sunk all in worthless speculation, until the Clunes Company came to the rescue, and enabled him to make profits by crushing for them.

He is naturally slow to find that after all that has been done to hide his proceedings—heavy losses and bad contracts—the shareholders should know the facts. The melting offices have saved this company. However, let us look to the future. We know the value of the outcrops of rich auriferous quartz, &c. What is wanted is to obtain a lease of a large tract, on fair conditions, and reduce the same by means of suitable machinery. Deep mining in hard compact quartz is a very dangerous speculation, and should never be undertaken, excepting by those who are thoroughly acquainted with gold mining in hard rocks. What are called deep workings in Victoria is not deep mining, but workings in the upper soft edges of the primary slate, under a thick cover of clay, gravel, &c. The soft ferruginous quartz sometimes pays for working to the depth of 20 to 30 fathoms; much depends on the character of the rock and quartz. The veins may contain ferruginous quartz veins, and if the quartz is as rich on an average as represented, the company ought to derive large profits from the workings, as well as from mere crushing.

Profits are obtained in South America from the workings on the outcrops of quartz veins, which only produce on an average 7 dwts. per ton, and under. It is stated that the Clunes property contains a very large amount of quartz, of the value of from 2 to 3 ozs. per ton.

It is to be hoped, therefore, that Mr. Bland will not only recover the past losses, but will be able to make permanent profitable returns for many years. The colony is now getting into a state to encourage companies.

Clarendon-gardens, Maida Vale, W., Feb. 16. EVAN HOPKINS.

## SOUTH EUROPE MINING COMPANY.

SIR,—In a letter published in your *Journal* of last week, a correspondent ("X. Y. Z.") directs attention, in some pointed and interesting remarks, to the circumstance of a mineral vein having been lately cut in Monte Romero, one of the company's mines. Your correspondent refers in this letter to the fact that specimens of the mineral had been received in London, and were then in his hands for analysis and report. My examination of the mineral being now completed, and the report in the possession of the company, it may perhaps be interesting and useful to your readers to receive more definite information on the subject; this I am permitted by the company to supply.

From the reports which have been already published, you will have learned that the modern workings of the mines in the Huelva district are almost all based upon those of the ancients, which have been re-opened and extended as was found requisite. It was in opening an old Roman adit in Monte Romero that the vein in question was cut. This vein, as your correspondent remarks, has really nothing to do with the deposit of copper ore; and it is not a little remarkable that, with the exception of a small quantity of native copper in a granular state, the mineral from the vein contains scarcely a trace of that metal. It is, indeed, a cross run of mineralised matter, passing at right angles to the main deposit, which runs east and west, the adit itself taking the same course as the deposit; and as the vein lies north and south, the adit has been, in fact, cut directly through it. The general geological features of the locality in which these mines are situated consist in more or less elevated porphyritic ridges, which have upheaved the clay-slate, the ridges being clothed with the slate on either side. The deposits of copper pyrites are found, I believe invariably, lying between the porphyry and the slate, occupying vacuities between the two. The vein of mineral has been cut in the slate, and not at all in connection with the cupreous deposit. The mineral from the vein is, however, valuable, as it consists of arsenical cobalt, slightly argentiferous. The mean of my examinations give a yield of 21.5 per cent. of oxide of cobalt, one specimen yielding no less than 30 per cent.

Through the managing director of the company, Mr. Thornthwaite, instructions have been forwarded to Spain to commence active working upon the vein. With your permission, I will communicate to your *Journal* any new facts which may present themselves, and which, I think, cannot fail to be interesting, in connection with this comparatively new and promising mining district.

THOS. W. KEATES, F.R.S.

Chatham-place, Blackfriars, Feb. 11.

## TIN SHODE STONES.

SIR,—Amongst the numerous letters on the various subjects of mining processes inserted in your valuable *Journal*, and in nearly all the works I have perused, the old practice of shoding seems to have been overlooked. This I attribute principally to the disuse into which it has fallen of late years, the whole of Cornwall being supposed to have undergone this ordeal; but there are parts of Devonshire where "shode stones" of no mean quality have been discovered. I feel fully persuaded that a strict search would be well rewarded. Not long since I saw a fine shode stone from the Cawsan Hill, which was rich in tin; I have also seen some from other parts of very good quality. Many of the principal tin mines of Cornwall have had the backs of their lodes discovered in the first instance by shode stones having induced miners to costean for them. When young, I have often gone out "shoding" with Capt. R. Berryman, of Zennor, and miners called Sonny Ellis and John Thomas, on the sides of Castle Dinas, Saneered Beacon, Carn Galver, &c., and not without success. I could point out several tin lodes near Nancledren that were discovered by this agency.

I am led to make these observations from a circumstance which occurred to me when examining the Crysfort Mining Company's property, in Ireland, a few weeks since, where, in a situation a lode was supposed to exist, examination led to a discovery of shode stones, some of which were turned up by ploughmen; others were found built into the stone walls forming the hedges of the fields. These, by the acumen of Capt. Silas Evans, were recognised as shodes from the back of a gossan lode. Costeaning led to the discovery of a magnificent vein of gossan and sulphur, the character of which left no doubt whatever of the identity and locale of these erratic messengers, which were found at the distance of many hundred yards below the actual lode. This fact has led to the practice being pursued to

some extent, and with considerable advantage. It was perfectly palpable that this gossan had been disrupted by some convulsion or flood, and removed to this great distance.

Too much attention cannot be devoted to these apparently trivial circumstances; indeed, not the slightest should be overlooked or neglected by the intelligent and cautious miner. The apparently most trivial indications may be fraught with important results, and if not immediately acted on should be noticed for future remark and comparison. Young men would do well when they meet with a stone having any peculiarities they do not understand to place them by for reference, and make written minutes of the circumstances of their being found, and of the locality. Such practices involve but little trouble, and may subserve some most valuable purpose at a future period. When rambling over wild commons nothing is easier than to carry a small hammer, to test the various stones lying about, as, perchance, the rambler may be fortunate enough to meet with a "shode" of value. It is said these stones, having literally no habitat, were formerly so numerous that men followed shoding as an employment when they had no better; it must have been at best a precarious avocation, were not the discovery of lodes the ulterior object. It will be remembered that in the earlier days of Australian gold discovery nuggets were found at the surface; these were but shodes of gold, holding the same relation to the vein and gold washings as the Cornish tin shodes do to her tin mines and tin streams.—Feb. 15.

GEORGE HENWOOD.

## THE DOWSING, OR DIVINING ROD.

SIR,—I am aware that my letter to you on this subject, which I sent from Truro, has evoked a considerable amount of ridicule and discussion. In some districts I find that confidence is placed in the indications of the rod, but even the "faithful" do not absolutely ascribe its influence solely to metallic veins, but to springs and subterranean streams as well. I have conversed with many experienced and scientific miners on the subject, who hesitate to give their opinions, for fear of obloquy and sarcasm. If such silly causes are to interrupt the record of facts, or to retard enquiry into certain occult natural laws, it is time some one should stand out in defence of them, even though he be the object of censure, witicism, and ridicule.

On perusing one of Chambers's repository of amusing tracts (No. 25), I read an article entitled "The Mines and Miners of Cornwall." I believe this work in question is usually allowed to be one of sterling merit, and the name of Chambers to be a guarantee for any statement that may be made therein. The paper on Mines and Miners is well and correctly written. At its conclusion the subject of this letter is dwelt on to some extent. From it I learn that the matter had attracted considerable attention, and that Dr. Herbert Mayo had written a remarkable book, of which the third edition was published by Messrs. Blackwood, in 1851, "On the Truths contained in Popular Superstitions." In this book he states his own experiences and his own beliefs respecting the divining rod. Dr. Mayo was, like most other persons, a disbeliever in occult power; but he saw reasons to change his opinions. A perusal of this work will show that his experience and conversion are as nearly as possible similar to my own, as detailed in my letter to your *Journal*.

The subject has also been treated on by the Comte de Tristram, who in 1829 published a large body of facts corroborative of the theory. Mr. Pearce, surgeon, of Tavistock, has also devoted much attention and enquiry to these facts, and is said to be a convert. Recent discoveries have tended to give a new interest to the divining rod. It is known that Faraday, in England, and Peltier, in France, have made several remarkable discoveries in magnetism and dia-magnetism, by which it is shown that magnetic properties of a decided kind are possessed by almost all kinds of substances, wet and dry, organic and mineral, animal or vegetable, living or dead. Reichenbach, Colquhoun, and Dr. Gregory have also been writing largely on the disputed point.

If this be the case, why should they who have proofs to adduce in favour of the theory hesitate to make them public, for the benefit of science, and to prove to these philosophers, by the best of arguments—practical experience—that their efforts are appreciated, and that these phenomena are attended to by working Cornish miners and agents? The writer of the excellent article in the "Repository" thus concludes: "Whether there are any such currents in metallic veins, or in running streams; and whether, if there be such, these currents affect any light object held in the hands of sensitive and delicate persons, are questions rather of science than of superstition; they cannot be shelved by mere post-phooling." If it be asked whether belief or disbelief in the occult powers of the Cornish miners' dowsing-rod be right, we should say neither at present; wait for further experiments, and whenever and wherever they may arise scrutinise them closely, but give them fair play.

To all this I fervently say Amen. In hopes that facts like these may reassure your numerous readers who believe in the dowsing-rod, and tend to elucidate this theory, I now trouble you with this epistle, and doubt not it will cause a long, and I hope interesting as well as valuable correspondence, through the medium of the *Journal*, which is the legitimate channel for such communications. I shall be most happy to take my share in the discussion, and record such experiences as I may encounter in my extended examination of so many mines as I am in the habit of visiting.

LEEDS, FEB. 11.

## STEAM-BOILER EXPLOSIONS.

SIR,—In last week's *Journal* publicity is given to a letter from Mr. J. Anthony on this subject, and from the knowledge I possess of steam-boilers, &c., I quite concur in all that gentleman says.

On making enquiry, I find boilers of the ordinary construction cast at 15*l.* per ton for structures made out of old plates, with the holes sheared off; 20*l.* per ton from Staffordshire plates; and 30*l.* per ton from Low Moor or Bowling plates, all put together by single holes, rivets, and lap-joints. Thickness of metal  $\frac{3}{8}$  to  $\frac{1}{2}$  inch. These explosive machines are worked from 10 lbs. up to 60 lbs., and in some cases 100 lbs., pressure per square inch. It is only a wonder to me that there are not more "awful boiler explosions," from the simple fact that the metal is not put into mechanical position by working Cornish miners and agents? In Chester, with those boilers that burst in course of hydraulic test, as there can but be one opinion—the plates were too large. Strange it is, with so useful but so dangerous an agent as steam, that there is not a Government standard for boiler-making in vogue.

A very erroneous impression prevails amongst the users of motive power, and their working at what they call high-pressure to be safe, inasmuch as they consider themselves safe with a boiler working under 50 lbs.; whereas, if they were working at 150 lbs., with a boiler made as it can and ought to be, they would have less risk of explosion, with economy, from the fact that steam is an elastic body, and is compressible, hence its increased power only requires a structure of sufficient strength to retain it, whether at 150 lbs. or 500 lbs. per square inch. It is my opinion that there would be fewer explosions by working up to the latter datum, with boilers constructed on the best principles, and other appliances requisite appended for security to life, coupled with a competent person to attend them, than there is at present with boilers made from the worst description of iron, on the least mechanical plan, and with the most inexperienced to look after them. Manufacturers and others using motive power forget that the boiler is the vital part to their machinery, and ought to be the most efficient structure the hands of skilled mechanics can turn out, with the best material, and ought to have that attention that would put a chance of explosion out of doubt.

A boiler ought to be carefully examined at least once a month, and cleaned out in those localities where the water is bad every fortnight, and under no circumstances should it be allowed to exceed one month. There was a boiler in this locality employed at a rice mill that was cleaned recently, and no less than thirty barrowfuls of sediment were wheeled out. It is to be wondered at, when boiler bottoms get burnt, feed cocks choked, water-gauges out of working order, and the engine-tender incapable of either finding out what is the matter, or why he cannot get steam.

There ought to be a law made absolute to prevent steam-boilers being put in the places they are—some underground, others in cellars, beneath buildings where there are all classes of workpeople employed day and night. I should not be at all surprised to hear tell any day of some great calamity from boiler explosions in the locality of Lancashire, arising from the unprecedented activity in the cotton spinning. It makes one shudder to hear ignorant people boasting of their boilers working at 100 lbs., that should not exceed 60 lbs. to the inch.—Exchange-buildings, Liverpool, Feb. 15. JOHN CLARKE, JUN.

## AMERICAN MAILS—RECEIVED ALTERNATELY BY GALWAY AND BY THE SHANNON.

SIR,—The Earl of Derby was the first Prime Minister who conceded, and who may not acting on, the principle that the above mails should pass through Ireland; a valuable concession to Liverpool, Scotland, and to the North of England, as letters may be received several hours sooner. The advantages conceded to Ireland generally may be considered as decisive. By the postal arrangements of the late Government, the letters for Ulster and Connaught may remain in Liverpool six or eight hours, being then shipped to Dublin, where they may again remain eight or ten hours—as it were in the dead-letter office; as if the merchants of Galway, Belfast, and the linen traders of Ulster, were awaiting a funeral.

The boon conferred by the Prime Minister might prove the greater were the American mails received alternately by Galway and by the Shannon. By that arrangement Liverpool, Scotland, and the North of England, might not be placed in a position worse than they might be, and the inhabitants of Munster and Leinster might be accommodated in their turn. "Fair play is a jewel." Of course, the proposed arrangement cannot take effect until a railway shall have been projected towards Tralee, or other harbour at the mouth of the Shannon. It is the interest of the Great South-Western Railway to promote the enterprise, and it surprises me that the directors of that company did not co-operate with the general Government in the deputation representing Galway and the Midland Railway interests, and who waited on His Excellency the Lord-Lieutenant, were for themselves only—not for Ireland generally; and the directors of the latter company may find themselves mistaken if they now imagine that a Conservative Government, bent on improvements, will permit them to deprive Kerry county and the South of Ireland of their share in the traffic of letters and of emigration, &c. The grand jurists, and the Lieutenants of the southern counties, may attend to this.

FEB. 15.

JEFFRIES KINGSLY.

Lieut. H. P. 3rd Dragoons.

## MINERS' COPPER SMELTING COMPANY.

SIR,—The spring being usually the time chosen for embarking in new enterprise, I would suggest that the present is a favourable opportunity for establishing the long-talked-of Miners' Copper Smelting Association, as I think it must be admitted that when the standard is falling, and the price of copper is high, is the period to start. I am aware that for some time past the smelters—I mean the old-established smelters, of course—have been contenting themselves with smaller profits than usual, probably in the hope that they will thus drive some of the new companies from the field, or, at least, prevent any further addition to the number; but even now their profits are immense, and there could, therefore, be no difficulty in obtaining ample profits upon any amount of capital the miners felt inclined to invest.

From your last *Mining Journal*, I observe that the price of cake copper in the market is 112*l.* 10*s.*, whilst the amount paid by the smelter for sufficient copper ore to make a ton of metal is but 96*l.* 4*s.*, which leaves 16*l.* 6*s.* net profit, that is, allowing for every contingency, a profit of 15 per cent. might be reckoned upon. I think it has been stated that a capital of 100,000*l.* would be sufficient, and when we consider that, calculating this minimum profit, the entire capital would be returned in less than seven years, it appears surprising that the subject has been permitted to remain so long in abeyance. No one, perhaps, has handled the question more ably than your correspondent in West

Cornwall, and, therefore, he might throw some light upon the best mode of proceeding to ensure success. We have been told that no dependence can be placed in receiving the support of the Cornishmen themselves, and the only effect which the establishment of an independent smelting company would have would be to lower the price of copper to the consumer; but with regard to the first objection, I think that the effect of metallic mining having now become a national industry renders the support of Cornishmen a matter of secondary consideration, and as to the price of copper to the consumer being made lower, it could only cause a larger quantity to be used.

I am sure there must be many of your correspondents who could give practical and impartial views upon the subject, and I, therefore, hope that a miners' copper smelting company will no longer be permitted to remain one of those necessary reforms looming in the future.—Feb. 15.

T. J. H.

## MINING IN FLINTSHIRE.

SIR,—Your *Journal* has of late frequently contained remarks on the mining interests of this county, especially of the Mold district. There is no doubt of its being well worthy the attention of capitalists, as there are several unoccupied mines, not deep nor watery, possessing every convenience that a mining district requires; and, I believe, taking the number of mines in operation, with the amount of mining business done, the returns, according to the outlay, will plainly show its value; and, I think, would surprise many had the reports and statements been publicly inserted in the *Journal*. There are now 10 to 150 fathoms deep, and some perfectly dry. The failures that have occurred, or may be occurring, must not all be attributed to the mineral poverty of the district, but chiefly to want of a little advice from the native miners. As it is, the discoverers of the richest mines at a shallow depth in the county—such as Coed Hendra, Garrag Boeth, Rhase-mor, Fawcog Gwern-y-Mynydd, Pwll-y-Wheol, Mount Pleasant, Park Miners, with others frequently turning up by poor men—form petty companies, taking no many ounces (sixteenth) each, and work occasionally, when time and means afford, consequently but little ground is explored in a great length of time. Hence it is evident that the locality wants nothing but a few enterprising companies to develop more ground in less time; by so doing I believe the county would soon stand in a high position in the mining world, from the good results obtained by smaller capitals than many may be aware of.

DEYONIAN.

## LADY BERTHA.

SIR,—At the meeting of shareholders on Thursday, Mr. King is reported to have said, "They (the shareholders) must remember that, although 14 or 15 agents had inspected the mine, only two agreed with each other, and how was that? Simply because these two gentlemen visited the mine together, and one went down the mine whilst the other remained at surface, endorsing the other's report when he had made it."

This statement being evidently intended to apply to Capt. Thomas Richards and myself, I call Mr. King's attention to the fact, that our reports were published separately, and that some weeks elapsed between the dates of the two inspections, consequently the charge of our conspiring together to give a fictitious report of the state of the mine falls to the ground. Mr. King, on referring to these reports, will at once discover the position in which he stands, and will doubtless feel bound to state on whose authority he made this charge, or in some other way exonerate himself from the imputation of having asserted that which has not the slightest foundation in truth.

WILLIAM CLEGG.

Devon Great Consols, Feb. 15.

## GREAT WHEAL VOR.

SIR,—At the late special meeting, the shareholders were called upon to debit themselves to the tune of 500*l.* to avoid litigation, and free themselves from the obligations of a contract entered into by three of their late worthy directors, without the shareholders' knowledge or sanction, though the latter was subsequently obtained by representations that have proved utterly fallacious. This contract, pronounced by the solicitor at the meeting to be one of the most extraordinary he had ever known or heard of, and which he believed had no parallel, comprised the purchase of about three-fifths of the shares in a contingent mine, upon the condition that the purchasers should hold them, without power of disposal, and pay to Mr. Croase, the late clever manager of the Great Wheal Vor, a royalty of 5 per cent. to the extent of their interest—not on profits, but upon the value of the ores raised. This is the bargain which the then Chairman announced to the shareholders in terms of congratulation, and dilated, with his usual savviness, upon the great advantages he thought would result, but carefully abstained from acquainting us with certain conditions, from which, when recently made known to us in detail, the unfortunate dupes have not ceased to seek the liberation obtained on Monday week. The actual result is about 10,000*l.* cost to the shareholders, and the Great Wheal Vor shareholder.

This is a subject which immediately concerns every Great Wheal Vor shareholder, who has to draw most of his mining information from your columns, and is not without interest to every one of your readers who holds a mining share. It is hoped, then, that the insertion of this letter in your next *Journal* may put all shareholders upon their guard against conceding uncontrolled power to any directors, who, by the abuse of confidence reposed in them, may think fit to commit them to such very advantageous contracts, though pronounced by high authorities to be illegal. Many of your readers may be curious to know how this was done, that they may the better know how to avoid the evil. It was by the shareholders inactively passing a number of rules and regulations submitted to them by directors, whereby they (the directors) sought and obtained power to buy, *ad libitum*, other mine sets, &c., without requiring propositions, largely involving the shareholders' interests, to be first submitted to them for examination and approval. It must not be forgotten that the shareholders never attended the meetings in sufficient numbers to command a majority over the directors, so that any proposal, however inimical to the general interests of the shareholders, emanating from them, was sure of success. One of the results of directors holding a very large interest, which in this case has proved most damaging to the shareholders in more ways than one, is that not one of the late directors who were parties to this deed (although the meeting was informed by the Chairman that due notice of the special meeting, and particular business to be transacted, had been sent to them) had the manliness to meet the shareholders on that occasion, is a fact which indicates a preference of avoiding the rendering any account of their stewardship, by a timely withdrawal from the adventure.

As the attendance of shareholders on Monday week was so very small, it may be questioned whether the proceedings will be confirmed or rescinded at a full general meeting, without some understanding that the parties who consented to the contract will reimburse the company, or be compelled to do so.

A SHAREHOLDER.

## Meetings of Mining Companies.

## WHEAL HARRIETT MINING COMPANY.

A meeting of shareholders was held at the company's offices, Austinfriars, on Monday, Mr. J. E. MATTHEW in the chair.

Mr. E. KING (the secretary) read the notice convening the meeting, and the minutes of the last, which were confirmed. The accounts showed—

Balance last audit	£ 86 3 8
Oct. cost, merchants' bills, &c.	279 5 0
Nov. ditto	216 5 2
Dec. ditto	279 14 4
Loss on sale of forfeited shares	6 5 0 = £567 18 2
Call	£512 0 0
Sale of copper ore	186 0 7
Tinstuff	45 15 6
Credit on tinstuff last account	0 2 6 = 748 18 7

Leaving debit balance £123 14 7

The report, from Capt. S. Williams, was then read, as follows:—

Feb. 12.—Since the last quarterly meeting the 100 has been driven east on the counter lode 7 fms. 2 ft.; for 4 fms. in this driving the lode is from 2 ft. to 3 ft. wide, producing good work for tin; the lode in the present end is 9 inches wide, producing good stones of copper ore, with a kindly appearance. The winze has been sunk below the 90, on the counter lode, 3 fms.; lode about 6 in. wide, producing stones of ore. The 80 has been driven east on the main lode 7 fms.; for 2 fathoms in this driving the lode will pay for working in the bottom of the level for tin and copper ore; the lode in the present end is 1 ft. wide, producing stones of ore; we have 4 fathoms further to drive this end to get under the winze sunk below the 74. From the appearance of the lode, east and west of the above winze, in the slopes we may very soon expect an improvement in this end; the lode in the slopes, which is 5 fms. in length, is worth 20*l.* per fm. The 74 has been driven east on the main lode 6 fms. 3 ft.; for 2 fathoms in this driving the lode in the bottom of the level is worth 2 tons of copper ore per fm. As soon as it is convenient to work this ground in the bottom of the level, and drive this end, I think it advisable we should put a pair of men to sink and stop this lode; the lode in the present end is 1½ ft. wide, producing stones of ore, not sufficient to value. The deep adit level has been driven east on the main lode 6 fms.; for 2 fms. in this driving the lode produced 1 ton copper ore. I have set a pitch in the back of this level to two men, at 15*l.* in 1*l.* the lode in the present end is 1 ft. wide, producing stones of copper ore, and showing kindly appearances. We are now employing 36 men on tutwork; tribute, four; working engines, three; Landers and fillers, two; smith and boy, two; dressing ore, one man; and girls dressing ore, twelve—total, 60. With this amount of employ I anticipate the cost for the next three months to be about 250*l.* per month. On Wednesday next we shall sample about 40 tons of copper ore, and, from present appearances of the mine, we shall for the next two months raise a similar quantity, which, from the present standard of copper, will realise about 400*l.* The engines and other materials are in good working condition, so that we shall want no extras for the next three months.

The SECRETARY, in answer to a question, replied that 400 tons of ore would be sampled during the week, which the painter had raised about 200*l.*

The accounts being passed, a call of 2*s.* per share was made, payable within 14 days. The CHAIRMAN was compelled to again bring before the shareholders the question of forfeited shares. It would be recollected that at their last meeting there had been passed a resolution, authorising certain steps to be taken with regard to certain forfeited shares, based upon a letter from Mr. Childs, the solicitor. The advice of that letter had been acted upon. The secretary had written to shareholders whose shares were in arrears of call, informing them that such would be sold by public auction. To this notice only one shareholder replied; and the remainder of the shares were, therefore, sold. Although in that letter a promise was made to liquidate the arrears, which amounted to 25*l.*, the money had not then been received. It was, therefore, a question what was to be done with those particular shares?

The SECRETARY thought that course could not be adopted, as they were acting under legal advice. He had no doubt, were the matter left in his hands, an adjustment could be effected. In reply to a question, Mr. King proceeded to say that there were two parties in arrears upon two calls, and one party upon three calls. With regard to these, he thought the most advisable course to pursue was to hand their names to some of the merchants. However disagreeable that might be, and a course he was on all occasions unwilling to adopt, it was a duty, he thought, which he owed to every shareholder. Mr. T. KING thought they had better leave the matter in the hands of the committee, for them to deal with as they deemed fit.

A SHAREHOLDER expressed his surprise that after the writer of the letter had promised to pay the arrears of call, neither the writer himself, nor anyone appointed by him, were present to offer some explanation.

The SECRETARY thought, with regard to this particular case, some explanation was expected at his hands. In February there was a great rise in the price of the shares of that company; this party was in arrears upon one call only. On Nov. 25 a special meeting was held, and a call made, whereby these particular shares were in arrears upon two calls. Upon further notice, they were put into the hands of the committee of management. The shares having risen in the market, the party referred to becoming cognizant of the fact, without apprising either the committee or himself, forwarded a 5*l.* note to the bankers, which was never taken into the company's accounts. The next thing they heard of was the transfer of his shares. The whole matter was then laid before Mr. Childs, who advised that the committee should allow the party the privilege of again taking up his



shares, upon which advice they had acted. Notwithstanding this caution, the arrears had not been paid.

It was then resolved, that the secretary be requested to hand over the names of the shareholders who are in arrears of call to the merchants, for the purpose of enforcing the payment thereof. The committee of management were re-elected.

Mr. E. KIRK stated that the most auspicious points were the 90, which in 4 fms. driving would come under the ore ground going down in the 70; and in the 100, driving east, the end would cross the cross-course, which in the upper levels had produced good bunches of ore. Though the ends were not looking well at the present time, from the tenor of the agent's report, they could look forward for more satisfactory results during the ensuing quarter. The costs would be kept down as much as possible, and at the next meeting he trusted that the balance-sheet would present a much more favourable aspect.

A vote of thanks to the Chairman having been unanimously accorded, the proceedings terminated.

#### SOUTH CUDDRA MINING COMPANY.

A meeting of shareholders was held at the offices of the company, Austinfrs, on Thursday, Mr. TREMMEER in the chair.

Mr. CHARLES (the secretary) read the notice convening the meeting, and the minutes of the last, which were confirmed.

The reports of the committee and of the agent were then read, as follows:—

It is with much regret your committee have to report that the operations which were carried out to cut the Wheat Regent lode have not been attended with success. This lode has been worked on in the adjoining mine for nearly a quarter of a mile in length, and can be traced a distance beyond the workings eastward. It has been worked on, to within a short distance of our boundary, and ore appearing raised at this time on that lode within a short distance thereof. In the adit this mine it is about 1 ft. wide, producing spots of ore, but we cannot discover any trace of it 30 fms. below the adit, though everything that mining could suggest has been brought to bear on the explorations. Few mines have been opened with greater prospects of success; in a very short time 10000. worth of ore were brought into market; then the great gossan lode was opened and promised so much at the adit, being 6 ft. wide, and of the most kindly character, but at the 40, from surface, that lode was unkindly, and such as to cause us to abandon it. We regret very much that the result has been so unfavourable, but, holding largely, we are equally disappointed with the general body of shareholders. We do not feel justified in continuing the works as suggested in the agent's report, which in our opinion are not likely to be attended with any beneficial result to the company. The north part, or Old Cuddra Mine, is a very desirable set, and offers great chances for success on the Great Crinis great lode, but the capital required would be 10,000; we therefore, leave you to decide on the course to be adopted.

Feb. 16.—From previous reports you have been given to understand that we could not find any lode worthy of notice in the 50, although we had cross-cut in two places the line of the lode; the lode would be small and insignificant, and in ground barren for mineral. We have let in the water at the 30, and thought it well to open out a few fathoms on the lode in the adit level; we have driven about 5 fms. on the lode here, and find it about 1 ft. wide, composed of spar and spots of copper ore, but not sufficient to save. I consider there is very little chance of success for spending any more money. After trying the south and north part of the various lodes, and finding the prospect less encouraging below than at the adit level, a cross-cut could be put from the engine-shaft north to Bell's lode, at an expense of 450. per month for four months driving, but this is very speculative. I am very sorry we have been unsuccessful, but every shilling has been spent economically. The North Cuddra Mine, if possible, be retained by the company, as that will be valuable when the old Charlottown Mines shall be drained, which is now in anticipation.—S. TREMMEER.

The CHAIRMAN said, he was sorry that they had so unfavourable a report. The first point was a lode in continuation of the West Crinis Mine, and although this failed there was some hope that the convergence of the lodes would be productive. They had, however, explored the 30 and 40, but without success. There appeared no prospect of success, so that there was but one course to propose—to wind-up.

Mr. LAWRENCE thought it might be worth while to try a little longer. Mr. CHARLES explained that they had driven south and then north-east, and had driven beyond the perpendicular of the lode; they then drove north-east, and were equally unsuccessful.—He then read the statement of accounts, from which the following is condensed:—

Balance last audit	£ 2 11 7
Calls received	647 5 0 = £649 16 7
Mine cost	£409 3 8
Merchants' bills	160 15 2
Sundry bills	75 11 4 = 645 10 2
Leaving credit balance	£ 4 6 5

The statement of assets over liabilities showed a balance of 1117. 17s. 9d.

In reply to Mr. LAWRENCE, the CHAIRMAN stated that the amount of the arrears of calls was about 3000.; and Mr. CHARLES remarked that if not paid they would be put into the merchants' hands. Taking all things into consideration, it was likely a call of 1s. per share would be required to wind-up. If they got rid of the claim for a grant of the lode, they would be in a better position.

Mr. LAWRENCE thought they might sink a mine without trouble. They would know the expense of agency and of six men, and that was all that would be required. He said that much of the lode remained unexplored, and which they had not seen.

Mr. CHARLES observed that that arose because, unfortunately, they could not find the lode. He was afraid it had dwindled to nothing between the adit and the 30.

Mr. LAWRENCE thought, as another month's trial would only cost 400., which would be but 2d. per share, it would be better to give it that much further trial, especially as it would likewise give the adventurers not then present an opportunity of expressing their opinion. He thought they might depend upon it that this nothingness was only disorderly ground.

Mr. CHARLES did not say the lode might not be found again in depth, but they must consider that the gossan lode is also lost in going down. He was not a chicken-hearted miner, but in this instance he thought everything seemed against them.

After some further discussion, a call of 1s. per share was agreed to, payable before March 10, and the meeting was adjourned for a month; steps to be taken in the meantime to prove the Regent lode east, and also by a winze below the adit level. It was understood that, should nothing satisfactory be discovered, the further working of the mine will be stopped.

#### KELLY BRAY MINING COMPANY.

A meeting of shareholders was held at the company's offices, Austinfrs, on Thursday, Mr. PETER WATSON in the chair.

Mr. E. KING (the secretary) read the notice convening the meeting, and the minutes of the last, which were confirmed.—The accounts showed:—

Balance last audit	£ 164 9 5
Copper ore sold (three months)	1704 12 9
Mundic sold	45 0 2 = £1914 2 4
Mine cost, merchants' bills, &c., Oct.	£ 525 17 0
" " " " " " " " " " " " " " " "	537 10 8
" " " " " " " " " " " " " " " "	597 12 2 = 1660 19 10
Leaving a credit balance of	£ 283 2 6

The CHAIRMAN observed that some explanation ought to be given of the accounts presented. It would be seen that there had been a considerable profit during the past three months. It must be borne in mind that the eastern mine expenses had been from 400. to 4500. during that period, in addition to which there had been charged about 1000. for pumps, &c. The whole of the profits had been expended upon the eastern part of the mine. The western mine had, therefore, given a profit of something like 5000. to 6000. They had sold ore which had realised about 17000., and the reserves had increased. The agent's report was then read, as follows:—

Feb. 15.—The 135 has been driven east about 4 fms., which makes the entire length of the drive 34 fms. east of shaft, through unproductive ground; and we thought it advisable to suspend it, and put the men to drive a cross-cut in the 115 south, in search of the lode which was discovered in the adit. Should this lode be found productive when met with it will greatly enhance the value of the mine, as it is standing where the surface of the entire length of the set. The above named cross-cut has been driven south 19 fms., 15 fms. of which were driven some four or five years since, and we calculate, if the lode continue the same underlie as seen in the adit, there are from 10 to 12 fms. further to drive to intersect it, which will occupy three months to complete, looking at the present appearance of the ground. The lode in the back of the 75 west is worth 120. per fm. The 70 end, which was named in last week's report, is suspended, owing to the men having taken the ground on tribute. The lode in the 56 west is worth 150. per fm.; here we are opening up a valuable piece of ground, which will be taken away at a good profit to the adventurers. There has been a cross-cut driven south 4 fms. 2 ft. 3 in. the 56, and intersected the lode, which lode, which we consider is the same part the ore was discovered at in the 45, about 10 fms. east of the above-named point; the lode is now worth on an average, for 15 fathoms in length, 250. per fm.; and, judging from the dip of the shoot of ore in the 45, the same ought to be met with in the 55 in about 6 fathoms further east, which we have every reason to expect it will, as the lode in the bottom of the 45 has a very kindly appearance going down. The 45 has been driven 18 fms. east of shaft, and a cross-cut driven south from the shaft part of the lode 7 fms. 3 ft., and a communication made, so that we have a full supply of air. The lode in the above-named end is 2½ ft. wide, yielding good stones of ore, and is likely to improve. The stopes in back of the above level are set on tribute to six men, at 6s. 8d. in 11., and the men are earning fair wages. The tribute department is somewhat improved: we have ten pitches working by 30 men, at an average tribute of 10s. 8d. in 11.—Eastern Mine: Watson's engine-shaft has been sunk to the 60 below surface, and the winze-shaft is down to the 50; the men are now engaged in driving west towards the winze-shaft, and we intend to commence sinking the same as soon as the surface-water falls back, so as to enable us to sink dry. I would recommend that the winze-shaft be sunk below the 50 with all possible dispatch, in order to get the winze-kibble down to draw the stuff from the cross-cut, and also for ventilation, as it will greatly facilitate the operations at the above-named point. The 40 has been extended east from cross-cut on the course of the lode 11 fms. 3 ft., in which the lode is on an average 1½ ft. wide, composed of quartz, fluor-spar, mundic, and rich stones of copper ore, of the same character as I have forwarded for your inspection; it is a very kindly lode, showing favourable indications for the production of copper ore as we approach the elvan course eastward; but in the last 2 fms. driving we find the underlie to be north, which causes us to doubt whether we have got the north or main part of the lode. For this reason, in the western mine Kelly Bray lode has been sunk on for 135 fms., and we find the underlie to be about 2 ft. in a fathom south; and for satisfaction we thought it most advisable to drive a fathom or two further north, to ascertain whether we are on the main lode or not. I calculate the reserves to be about the same as they were the last general meeting—from 50000. to 55000. worth of ore discovered in the different parts of the mine. I estimate the next three months' cost will be from 5000. to 6000. per month, including stores, dues, &c., and the returns from 130 tons to 140 tons per month, of the usual quality. Our machinery is all in good working order: we have employed on the mine, underground and at surface, about 180 persons, including men, women, and children.—S. JAMES.

The CHAIRMAN said, since the last general meeting they had had a very productive lode in the 45 east. Some nine or ten years there was but one level driven east from the engine-shaft, which was the 45. The original proprietors had only driven one level, which was the 45 east, when they sunk down to the 45, where they first met with the ore ground. It subsequently appeared that the 45 had been driven on the wrong lode. They had now driven some 15 fms. in ground worth 250. per fathom, and he thought he might venture to assert that it would be worth 200. per fathom for 20 fathoms long. During the past three months 15 fms. had been driven. He had received a letter from the purchaser of the mine, who stated that the lode, which had been in a disordered state, was assuming its former appearance, and worth 1 ton of good ore per fathom, valued at 60. per ton, so that it was of much better quality than to the west of the shaft. Their agents, unlike the reputed character of agents generally, had during the last two years, with one

exception, made estimates below the mark. Their prospects were decidedly better than at last meeting. The lode was gradually improving as they approached the elvan course. The underlay of the elvan course very much resembled that at East Basset; it was precisely in the same position. The winze-shaft would be down from the 50 to the 60 in a very short time, and the cross-cut in the 115 would intersect the lode, from which he anticipated satisfactory results. In extending that cross-cut there was an entirely new lode, in a very easy channel of ground; and as good stones of ore have been found in the adit level it might be fairly expected that some immediate good would result from its development. There were several important points to come off during the next three months. He thought they had better continue in their present state until a discovery had been made further east. They had laid open some good reserves in the 45 east, and they were only 5 fms. behind that point in the 55. If the same ground were discovered in the 55, of which there could be no doubt, their reserves would be materially increased. The further they drove east the richer the ore became in quality, which arose from the fact that it went through a lead-bearing country westward, but passing through many cross-courses, and as it proceeded eastward left the jack of blende. A box of ore from the eastern mine had been received, and an assay of two parcels of the ore had been made, which produced, respectively, 12.3-10ths and 24.6-10ths per cent.

Mr. BIRDSEY said it was an acknowledged fact that when copper came in it drove jack or blende away, and that, no doubt, would be the result in this mine. At the Kelly Bray Mine they were now doing what had been recommended 20 years since.

The CHAIRMAN said there were five or six lodes upon which they had not yet worked, including a champion lode of great promise.

Mr. BIRDSEY remarked there were very reasonable expectations that the eastern mine would come in rich, when, of course, the mine would make large profits.

The CHAIRMAN, in answer to a question, said that the winze-shaft was only down to the 50. They would rise and sink, and communicate in about two months, when they would cross-cut from the 50. The great object was to come up with the elvan course, for almost invariably the elvan courses were the making of a mine.

The committee of management and auditors were re-elected, with a vote of thanks for past services. A vote of thanks to the Chairman terminated the proceedings.

#### SOUTH LADY BERTHA MINING COMPANY.

A meeting of shareholders was held at the company's offices, Threadneedle-street, on Tuesday, Mr. WATKINS in the chair.

Mr. T. FULLER (the secretary) read the notice convening the meeting, and the minutes of the last, which were confirmed. The accounts showed:—

Balance last audit	£373 6 0
Oct. mine cost	76 11 4
Nov. ditto	121 2 10
Dec. ditto	187 2 9
Discount allowed on calls	11 17 = £740 0 6
Balance of trust account never applied	£ 1 5 0
Cash in hand at last meeting	6 0 0
Calls received on restored shares	14 15 0
Calls received	456 14 0 = 478 19 0
Leaving debit balance	£261 1 6

The balance of liabilities over assets was 2090. 0s. 6d.

The SECRETARY read the report of the committee, which stated that the calls had been paid upon the shares forfeited on Nov. 15, and restored to the respective holders.

The agent's report was read, which stated that all the bottom levels had been cleared of the attle left by the former company. A rise had been commenced on the copper lode in the back of the 40. There were 17 men underground, with a kibble-diller and lander. Seven tons of copper ore broken from the adit level had been sampled.

The SECRETARY, in answer to a question from Mr. Stuart, replied that the crusher was in course of erection, the foundation being complete. Referring to the accounts, he stated that their liabilities had been very much decreased since last meeting. The statement did not include the cost of the crusher, although it included the foundation. It would cost about 400. as soon as the work was commenced, and Mr. Stuart, who was to set, and then sink to open out fresh ground. The bottoms would increase the value of the mine considerably.

Mr. JONES said that to properly develop their mine they must sink, drive, cross-cut, and keep the ends alive. If the cross-course could only be touched and find ore in it, that would be the mother of the mine.

The SECRETARY remarked that there were two lodes very nearly together, and it was reported there was a good lode in the bottom of the winze. Capt. Goss thought the adit level was the main lode. The ore to be sold that week was taken from the winze in the adit level, and everything had been carefully supervised.

The accounts were received and passed. The report of the committee being adopted, it was resolved that the 1000 shares in trust should be divided *pro rata* amongst the shareholders, thereby making the original number 6000. After some discussion, a call of 2s. per share was made, to be paid within 14 days and the balance within six weeks, and that a discount of 5 per cent. be allowed if paid before March 1; no transfer of shares to be allowed unless both calls are paid.

The committee being re-elected, a vote of thanks to the Chairman terminated the proceedings.

#### CLARENDON CONSOLIDATED MINING CO. OF JAMAICA.

The sixth annual meeting of shareholders was held at the London Tavern, yesterday, Mr. J. W. CATER in the chair.

Mr. J. H. KOCH (the secretary) read the advertisement convening the meeting, and the reports, as annexed:—

At the half-yearly meeting, held on the 5th August last, the shareholders were informed of the arrival of the machinery in Jamaica; since then the works have been progressing in a satisfactory manner, and its erection is now nearly completed. Recent advice fully corroborate the favourable opinion entertained, both by Mr. Trengoning and Capt. Martin, as to the lode being found productive in depth; every step accomplished in sinking is marked by continued improvement, and the directors entertain hopes that when the engine is at work the results will be still more decided. They beg to refer to the following report from Capt. Martin, dated Jan. 8 last:—

"We have commenced driving the 58, and have driven east about 6 ft.: the lode is about 4 ft. wide, composed of green carbonate and priam, with numerous small veins of rich yellow copper ore—a very kindly looking lode, set at 21. 19s. per fm. We have also driven west about 4 ft.: the lode being very large was only carrying the north part of the lode, which is about 4 ft. The part we are driving is composed of dark porphyry, through which there is a perfect network of small veins of yellow copper ore, of very rich percentage, the whole lode being about 18 ft. wide. I think the lode about this place and in the bottom of the shaft, which is about 8 ft. below the 58, holds out promise that it will be found very rich in depth. I purpose driving 3 fms. west of the shaft, and then cut through the lode to get at the south wall, which I think will be about 18 ft. By driving on the north part it will save time and cost, as the lode is too large to carry in the end. By letting the south part stand will be a great support to our shaft, and save both time and cost. The lode is set at 21. 7s. per fm. The 46, west of shaft, on the north lode, is about 2 ft. wide, composed of soft priam, and veins of black and yellow copper ore, letting out a deal of water. I intend putting three Englishmen and three natives to get in the ladder, pumps, and rods for the engine, so that when the engineer gets the engine all right to work we shall have all things in readiness at the shaft."

The accounts for the past year have been made out and audited: a copy is annexed. Balance in hand Dec. 31, 1858, 3548s. 14s. 6d., of which 3106s. 6s. 1d. is in Exchequer Bonds, and 437s. 8s. 4d. cash at bankers.

The directors who retire by rotation are Messrs. W. D. Child, F. O. Thompson, and Major G. L. Way, who being eligible, offer themselves for re-election. The retiring auditor is Mr. W. B. Watson, who, being eligible, offers himself for re-election.

Stanford-hill Mine, Jamaica, Jan. 24.—Since August we have pumped out the water, cut down, timbered, divided, and put in ladder road to the engine-shaft from the 46, and sunk 2 fms. below the 58. The character of the lode for the last 2 fms. is of the most encouraging description, but the more so for the last two or three feet; it is about 5 feet wide, with well-defined walls. The lode is composed of priam, green carbonate, and numerous small veins of black and rich yellow copper ore. From the appearance at this point I feel confident that, as we get deeper we shall meet with good deposits of copper ore. I put six natives and two English miners to drive east and west at the 58 on the course of the lode, the lode is set at 15 ft. wide, and we are only carrying about 4 ft. of it, this being wide enough for the lode, at present set at 7 ft. per fathom. I purpose driving about 3 fms. west, and then cut through it to get to the south wall. The part on which we are driving is composed of porphyry, green carbonate, and priam, throughout which there is a perfect network of small veins of yellow copper ore. East, it is not so large, it is about 4 ft. wide, green carbonate and much priam, with veins or cavities containing black ore. This end is set at 21. 10s. per fm. You can see by this price the ground is not so hard. We have about 2 fms. more to drive to get to the large cross-course, which I find has hove the lode at the 46 about 16 fms. south, which part has never been seen to the east of the cross-course. There is no alteration in the cross-cut south at the 46; this end is set at 21. per fathom to two natives. I intend putting this cross-cut south to cut the lode to the east, which has been hove about 16 fms. south. By driving this end it will enable us in time to put a winze through from the 46 to the 58, and give air to work our deeper levels, and prove the lode as well. In the 46, west of engine-shaft, on the north lode, the lode is about 2 feet wide, composed of priam and veins of black and yellow copper ore, having a very kindly appearance. There is a quantity of water coming out of this end, which has lessened the water in the sink below the 46 a great deal. This is set at 20 natives at 21. 4s. per fm., without the assistance of English miners. Three Englishmen and the pitman are now putting in ladders, and dividing the shaft from the surface to the 46. I am pushing on the work at every point, in order to get the machinery to work in proper time. As to my opinion of the mine, had I not thought that it would make a mine I should not have taken my fifty shares. I have looked at the lode from No. 3 to the present bottom of the shaft, which is 60 fms. from surface, and find it to be increasing in size and kindness as well. By what I see the lode is composed of the bottom of the shaft, I am led to believe that we shall not have to sink much deeper before we see something good. The masons will complete building the chimney to-day, and then commence the flues about the boiler. As to the time of the engine being set to work that depends on the engineers arrival. [The engineer sailed from Southampton on Jan. 17, and would arrive in Jamaica on the 4th or 5th of February.] Should he come by this packet and set to work at once, I think by the middle of March we shall get all things in readiness. You may rely on my doing my best to get the engine to work, and commence sinking the shaft below the 58, knowing that time is money.—JOSEPH MARTIN

The CHAIRMAN said that those reports had been circulated among all the shareholders, from which as correct an opinion could be formed as it was possible for the directors to convey, but before the accounts appeared they had thought it their duty to consult their consulting engineer, Mr. Trengoning, and to take his opinion, which he (the Chairman) was happy to say still continued the same as he had always expressed—that the further they went down in depth the greater was the probability of finding ore of a valuable character. This appeared to be strengthened by the paragraph which was appended to the last report, which had already been made. The captain's candid opinion was that there was every probability of success. He (the Chairman) thought the proprietors had been very fortunate in securing the services of a captain who had their interest so much at heart. The truth of the opinion which Capt. Martin has given of course remained to be proved, but it must be satisfactory to know that those reports have been issued, and that the machinery had been erected, and its expense borne. The expenses of the past year had been larger than those of the year preceding, but that was to be accounted for from the fact that 12000. extra had been expended in the erection of machinery, and of course a considerable amount had been expended in putting it up. He thought that they could not but congratulate themselves upon having secured the services of so able a captain. He was now working with 10 English miners instead of 18, by which a saving of 700. per month was effected; therefore there was every reason to hope that during the present year their expenses would be decreased 12000. or 20000. At all events, if the expenses were increased they would obtain ore, which he hoped would be of a valuable character in proportion to the amount expended. He would then conclude by saying that there were three directors who retire by rotation, and who being eligible offer them-

selves for re-election: There was also one retiring auditor, who also offered himself for re-election. He then begged permission to call attention to the first resolution—"The accounts then submitted be confirmed and adopted."

The CHAIRMAN, in answer to a question from Mr. Robertson as to whether there had been any ore raised and sold, replied that from 10 to 20 tons of ore had been raised, which their captain had very properly refrained from sending home until a larger mass had been accumulated. No ore, therefore, had been shipped. They had purposely advised his proceeding in that course, for they considered it of the utmost importance to discover what their probable prospects were, in preference to piddling about in getting small quantities of ore, which might deceive proprietors. A letter had been received, which stated that some portion of the lode at the 46 produced good ore.

Mr. TRENGONING, in answer to a question, stated that the letter referred to was dated Sept. 22, 1858, and written by Capt. Martin, and mentioned "that they had cut the lode in the 46 to the east of the slide, where it was worth 121. per fm." This, however, was probably too near the surface to continue any considerable length.

The CHAIRMAN thought that as their works had so far advanced, and that the machinery would soon be erected, there was every possibility of success hereafter.

Mr. TRENGONING said there was every chance of raising ore hereafter; indeed, from the tenor of the report which had been just read, and from his own opinion, there would be ore raised in a short time.

The reports and accounts were then received and unanimously adopted.

The retiring directors (Messrs. W. D. Child, F. O. Thompson, and Major G. L. Way) and the retiring auditor (Mr. W. B. Watson), were then unanimously re-elected.

The CHAIRMAN sincerely hoped that at their next meeting something of a more decided character would be laid before the proprietors.

Votes of thanks to the Chairman, directors, and secretary, have been unanimously accorded, the proceedings terminated.

#### WHEEL ADDAMS MINING COMPANY.

A meeting of shareholders was held at the company's offices, St. Helen's-place, on Tuesday, Lieut. WATSON, R.N., in the chair.

Mr. LIVINGSTON (the secretary) read the notice convening the meeting, and the minutes of the last, which were confirmed. The accounts showed:—

Mine cost, Nov. and Dec.	£360 16 6
Repaid secretary	100 0 1
Repaid Mr. Moore	129 7 6
Capt. Moore's expenses to London	5 0 0
Secretary and petty expenses	8 7 4 = £603 11 5
Blende ore sold	£291 1 7
Call paid	0 10 0
Cash advanced	311 19 10 = 603 11 5

The balance of liabilities over assets was 7311. 17s.

The SECRETARY, in answer to a question from Mr. Cooke, replied that everything had been charged up.

Capt. MOORE, in answer to a question from the Chairman, replied that the returns would entirely depend upon the number of men employed. He had never seen any good men on the mine, except a few at intervals, who only remained a short time. They were induced to go away from better situations being offered to them, where comfortable homes were provided.—A SHAREHOLDER said, with regard to the floors, he wanted to know how long it would take laying them down?

Capt. MOORE said it depended very much upon the men employed. The floors were now completed for the time being, but they ought to extend them. There would be 17 tons of lead ready by the end of the week. It must not be forgotten that he was only sinking certain stones of lead out of the blende, until such time as the machinery should be erected.

The CHAIRMAN: There is an impression, which was alike pernicious and detrimental, that the men employed on the mine had not been paid, to which, he thought, the cost-sheet was a sufficient answer. The report was that they could not retain more than one or two men on their mine, because they were not paid. The large cost-sheet gained that rumour, as also that a large amount of surface work had been done. Suppose they put their labour cost at something like 1000. per month, would that (interrogating Capt. Moore) enable you to go on as you have been for some time, and for lead, I believe, I believe the average expense would be about 100s. per ton, and 15s. per cubic yard of blende per month. He thought the two winzes could be run down: he should like to get down to the 50, and then he would not stop at 90 nor 100 tons of blende per month.

The CHAIRMAN said that it was desirable for all parties that the mine should at once be again placed in the position which they thought it was fairly entitled to in the minds of the public. He knew that the only satisfactory answer to the damaging reports which had been circulated would be their sampling. It would, therefore, be the better course to allow their captain to do what he proposed, to see what could be done during the next three months, and whether he had got the blende and lead to make returns, so as to place their financial position in a much more favourable light than at present. That was the best way to refute the unfair and prejudicial reports that had been circulated. After some further discussion, the accounts were passed.

The SECRETARY then read the report, as follows:—

Feb. 12.—Since our last general meeting we have driven the south, or William's, cross-cut 12 fms. west from the 28 fm. level plat, at the south engine-shaft, and intersected the whole of our lodes, including the western blende lode. About 4 fms. west of this plat we met with the former company's old level driven on one of the eastern lodes, some parts of which backs appear to be stopped away, but on bottom left standing whole; this same lode we cut through in the 40, from which we broke good work for lead. I believe this, when we can get to the 40, will turn out to be a profitable piece of ground between the two levels. This last-named lode is about 3 fms. east of our main level, which runs through the mine, and driven by the former company, and is one of the lodes met with about the 8 fm. level, at the old or north engine-shaft, and on which they have done nothing below this point. West of this lode, about 3 fms., we met with the old company's level driven on the eastern blende lode, which we have communicated to the north engine and trial shafts; the backs of this level appear to be partially broken away, leaving some of the lode in the 40, from which we have broken good work for lead. I believe this, when we can get to the 40, will turn out to be a profitable piece of ground between the two levels. This last-named lode is about 3 fms. east of our main level, which runs through the mine, and driven by the former company, and is one of the lodes met with about the 8 fm. level, at the old or north engine-shaft, and on which they have done nothing below this point. West of this lode, about 3 fms., we met with the old company's level driven on the eastern blende lode, which we have communicated to the north engine and trial shafts; the backs of this level appear to be partially broken away, leaving some of the lode in the 40, from which we have broken good work for lead. I believe this, when we can get to the 40, will turn out to be a profitable piece of ground between the two levels. This last-named lode is about 3 fms. east of our main level, which runs through the mine, and driven by the former company, and is one of the lodes met with about the 8 fm. level, at the old or north engine-shaft, and on which they have done nothing below this point. West of this lode, about 3 fms., we met with the old company's level driven on the eastern blende lode, which we have communicated to the north engine and trial shafts; the backs of this level appear to be partially broken away, leaving some of the lode in the 40, from which we have broken good work for lead. I believe this, when we can get to the 40, will turn out to be a profitable piece of ground between the two levels. This last-named lode is about 3 fms. east of our main level, which runs through the mine, and driven by the former company, and is one of the lodes met with about the 8 fm. level, at the old or north engine-shaft, and on which they have done nothing below this point. West of this lode, about 3 fms., we met with the old company's level driven on the eastern blende lode, which we have communicated to the north engine and trial shafts; the backs of this level appear to be partially broken away, leaving some of the lode in the 40, from which we have broken good work for lead. I believe this, when we can get to the 40, will turn out to be a profitable piece of ground between the two levels. This last-named lode is about 3 fms. east of our main level, which runs through the mine, and driven by the former company, and is one of the lodes met with about the 8 fm. level, at the old or north engine-shaft, and on which they have done nothing below this point. West of this lode, about 3 fms., we met with the old company's level driven on the eastern blende lode, which we have communicated to the north engine and trial shafts; the backs of this level appear to be partially broken away, leaving some of the lode in the 40, from which we have broken good work for lead. I believe this, when we can get to the 40, will turn out to be a profitable piece of ground between the two levels. This last-named lode is about 3 fms. east of our main level, which runs through the mine, and driven by the former company, and is one of the lodes met with about the 8 fm. level, at the old or north engine-shaft, and on which they have done nothing below this point. West of this lode, about 3 fms., we



It was the opinion of Capt. Hodge that if a fair trial were given good profits would accrue. He did not know whether he was at liberty to make the assertion, but there was a general impression to the effect that Capt. Hodge had said, "that under good management, the mine could be made to return 1000 per cent. per annum." The property had been depreciated, and whether justly or unjustly it remained to be proved. They had the opinion of one of the best miners in Cornwall, which testified that their property would not only pay costs, but also make fair profits, which he thought could be easily estimated at about 1000 per cent. It was patent to all that it was a very easy matter to depreciate property, and as difficult to reconstitute it. Referring to Mr. Treddick's Review of Feb. 1, which, after some introductory remarks, stated that it was compelled to withdraw the recommendation in favour of the mine which appeared in a previous number, the speaker, having read the statements referred to, proceeded. He would leave gentlemen to judge of the motives the party had in view in making those remarks. He had some reason for believing that it was merely to favour some particular friend. He (Mr. Cooke) was lately in an office, when he was told by a broker that a letter had been received, marked "private," which purported to be from the broker's agent. He read that letter, and although it was marked "private," to every person that came into that office that letter was shown. And it was not only not kept private, but it was the medium for misleading people who were in the habit of reading the "Mining Review." He would leave shareholders to judge for themselves as to whether that letter had been written in a friendly spirit. He saw that letter in Mr. Lelan's office; the writer's name was Hollow. A SHAREHOLDER thought the report should be shown to some legal gentleman, to see whether something could not be done in the matter.

Mr. Cooke continued: When some persons had the "put" of 400 shares at a certain price, they were, perhaps, less scrupulous than others in what they said about the mine. He thought the mine ought not to be starved, and that Capt. Hodge's suggestion should be adopted. He had not lost faith in Wheal Addams. Good returns had been made for a small outlay, and things did not look so bad as some would make them suppose. Mr. Peter Watson had inspected the mine, and had given a good account of it. From the (Chairman) expressed the most implicit confidence in Capt. Hodge, and thought that persons should not be frightened too much about other people's statements. Capt. Nicholas had not shown any kindly spirit; he offered no kind suggestions; although he said "that he could not give a conscientious report," he did all he could to knock down their shares.

Capt. Moore, in answer to a question, stated that Capt. Nicholas had told him, after he had seen the mine, that it would be against his interest "to speak disparagingly of the mine; but if the committee gave it up, they would do the worst thing they had ever done." He (Capt. Nicholas) recommended them to work in the same manner they were then doing. He believed the prospects were good, and he (Capt. Moore) thought that the present step had been taken for the very purpose of throwing the mine down. The opportunity had been watched when the floods were in the mine. He would undertake to carry out what he had promised, notwithstanding all adverse opinions.

Mr. POWELL said that the opinion of Capt. Harper was that their mine was a reasonable property. Mr. Peter Watson had offered 10000 for 1000 shares. The great cause of the shareholding was the delay of the publication of Capt. Hodge's report.

THE CHAIRMAN was very glad these practical opinions had been given, as they would doubtless serve to put their mine in that position to which it was fairly entitled. He begged to make a general remark with reference to these reports. As an independent shareholder, and by no means a speculator, he had no opportunity of knowing what was the state of any mining property except by printed reports. Admitting that, he looked to Mr. Murchison's "Review," in which were supposed to be inserted faithful reports, but he must say that he could neither see the justice nor the kindness of the course that he had taken upon this occasion. He put himself forth as a leader and adviser, and claims to be a good authority on mining, therefore it might be presumed by shareholders that he knows the persons he employs. Mr. Cooke had told them—and the impression had been confirmed by other parties—that Capt. J. P. Nicholls, from his antecedents, was about the very last man that ought to have inspected the mine. But taking Capt. Nicholls's statements, and giving him credit for every ability to inspect the mine, how stood his report? He told them "that the mine was in a state that it was impossible for him or any other person to give a definite and honest opinion as to its future prospects, and that, therefore, he was content to make the mine a subject of comparison with regard to the mine. It was to be presumed that Mr. Murchison read these reports before they were inserted in his Review, and he thought that any man of common sense and common integrity ought not to have given insertion to that report, the more especially when he saw its foundation. If he wanted to do justice to society, and to particular friends with regard to the mine, it ought to have been stated, as was done in Mr. Treddick's "Mining Review," that he was of opinion that it would be a mistake for the committee to employ a man of more experience than Captain J. P. Nicholls, as one of the committee, was of opinion that it was a fearful thing to jeopardize property by such fallacious reports. He, therefore, contended that they should protect their property against these unfounded statements. The divers reports that were in print, and hearing many other reports, had induced the committee to have the mine inspected by a man whose report was above suspicion. They accordingly wrote to Capt. Hodge, asking him to inspect the mine, but owing to other engagements they were compelled to submit to a little delay, as they were determined he should be to inspect their property, and that he should be a man of more experience than Captain J. P. Nicholls, and as far as his (the Chairman's) investigation went, it was his opinion that he was the fittest man that could be obtained in England; and his (Capt. Hodge's) opinion had been given, which was that Wheal Addams was a good mine, and likely to pay. The most satisfactory answer to all adverse reports, was the fact that the mine had paid its expenses for eighteen months, during which time there had not been a call, and that the whole of the calls amounted to only 3s. 6d. Notwithstanding these reports, there could be no other opinions, that they had a good property if properly developed. He agreed with the opinion that the mine was a man of more experience than Captain J. P. Nicholls, and that the present unpleasantness would never have occurred; but still it was untrue that their mine had been stopped for want of means, for fifty people were engaged upon the works. Mr. Moore had given him great confidence in the mine, by not decreasing his interest when opportunity occurred; and he still thought if their property was vigorously prosecuted it would eventually prove a good paying undertaking.

Mr. R. Moore was of opinion that had there been a call six months since their returns would have been much larger. He acknowledged the compliment which Lieut. Watson had paid him, and that he had not sold his shares, but had purchased hundreds at 20s. to 25s., confident that the mine was a good property. From the ground already laid open the adventurers must make more than half profit. It seemed to be forgotten that the cost-sheet had been increased by the erection of the machinery, and that a large amount of work had been done which had been paid for out of the sales of ore, and their returns would be doubtless increased when they got to the 50 ft. level.

Mr. WATKINS felt that he must give a word of credit to their captain; but when on the mine in September, that he had a very much regretted to see their engine lying on the ground, and the house not prepared to receive it. He thought there had been a delay in its erection, which, of course, had considerably decreased their returns, but they could now expect a new era.

Capt. MOORE, in answer to a question, replied that there were large reserves of blende and lead, which those agents had never seen. Their mine, he would fearlessly assert, and without disparaging the other mines, was as good as any property in the neighbourhood. If it could be managed better than he had done, he should advise them by all means to change their manager; and he would render every assistance in his power.

Mr. REVERT thought the mine had been shamefully managed. Mr. STUART thought there could be no doubt that the reports of both Capt. Nicholls and Hodge agreed that the mine was in a bad state, and that going through the whole minutes it seemed to be a repetition of the statements of Mr. Nicholls.

THE CHAIRMAN remarked, there was the fact that water was in the mine, but there was a wide difference between the reports.

Capt. MOORE, in answer to a question, stated that there were hundreds of kibbles ready to draw, and that he was not a man that he had not sold his shares.

THE SECRETARY, in answer to a question, replied that the lease was in his hands. The CHAIRMAN considered that the fact, as had been stated, that there was a great quantity of lead and blende, was the best answer to all the calumnies that had been circulated. The report was received and adopted.

A call of 2s. 6d. per share was made, upon which, if paid within 14 days, a discount of 5 per cent. to be allowed. The committee being re-elected, a vote of thanks to the Chairman terminated the proceedings.

N.B.—Since the meeting, information has been received that the water has gone away from the mine, and it is now quite dry.

## MINING IN JAMAICA.

WHEAL JAMAICA COPPER COMPANY.—Charing Cross, Jan. 26: Our director, Capt. Cooper, accompanied by Mr. Parry, surveyor and engineer, and the writer, returned from a visit to Charing Cross about a week since, and the report which they were able to make of the present appearance of the mine, and progress of the workings, was highly satisfactory to the committee. The shaft had been sunk 9 fathoms, and been holed to the cross-cut at No. 3, at a distance of 3 fathoms from that level. The timbering of the shaft is admitted by every one who has seen it to be a piece of first-rate workmanship, highly creditable to Captain Francis. The level in the end of the 65 ft. level north-east, has been driven to date 3 fms. 1 ft., and with two good walls carries a fine branch of copper ore 6 in. wide, in the mind of Mr. Parry and Capt. Francis that this is the main lode. The principal object of Mr. Parry's visit was to go forth with the suggestions of Messrs. Trengrove and Mr. G. B. Netherstone, to go over some dialling at the mine, of which I send the former plan and particulars by the present opportunity. But whilst on the spot, Mr. Parry particularly inspected the road being made by the company between the mine and Retreat estate, which has now been extended two miles out of three and a half to be done. The work is pronounced by him to be excellent, and his opinion on this subject is the more valuable as he is the principal engineer under whose auspices the great junction road between the north and south sides of the island is now being carried out, and nearly completed. The appearance of Mr. Parry's Cross, in every respect, more than justifies the expectations which the committee have always entertained of that mine, and that prospect of success now almost within its reach.

RIO GRANDE MINING COMPANY.—Jan. 25: Capt. Arthur writes me that he has discovered the lode on Brookdale, No. 5, about a quarter of a mile to the east of where they have been working; and that it is a very promising lode, composed of light blue porphyry, strongly intermixed with green and blue carbonates, and spots of very rich ore.

HOPE SILVER-LEAD AND COPPER MINING COMPANY.—Jan. 25: We have done but little late in reference to the sinking of the shaft below the 43 ft. level, in consequence of the gullies of the water, but now the water being much lessened, we are enabled to sink again with ease and convenience. The bottom of the shaft is not more than about 7 feet below the bottom of the 43 ft. level at present, but now I trust we shall be enabled to sink more rapidly in future. The lode in the shaft at the present deepest point reached looks exceedingly kindly; strong, regular, and easy, produced silver-lead, zinc, and copper ore, at times saving work. The shaft is being sunk on the footwall of the lode, carrying down with it, or taking away, only a very small slice of the lode, also a part of the footwall rock, which serves as a guide, and affords facilities for sinking. The lode at the 43 ft. continues much as before, producing saving work for silver-lead and zinc ore, but no copper ore at present worth the expense of saving out. The lode in the bottom of the 30 ft. level is much richer in silver-lead and zinc ore than I have seen them at the commencement, and the copper ore in the same place continues down also, with at times little variation in reference to quantity. The lode in the 20 ft. level gives good work for silver-lead and zinc ore, but we do not continue operations there regularly, only occasionally, as required for the purpose of raising supplies of work for the dressing floors. The ground in the deep level is now favourable for driving, being composed of porphyry (of a soft, friable, or granular nature, containing a little chlorite, giving a greenish blue or grey rock), apparently congenial for the production of argentiferous ores—or, in other words, very feeding for the metalliferous veins, or lodes, existing in it. We have lately laid the new iron rails in the level, and the advantages of the same are being already felt in the greater facility afforded in tramping the stuff out of the level. We shall now drive probably after the rate of about 5 or 6 fathoms per month, and at the same time commence putting up rise from the present end of the level to the surface for the purpose of ventilating the level. The rise will be about 10 fathoms in height. Particulars respecting the dressing department will be forwarded per next report. We have 180 barrels lead, and 45 barrels copper, ready at the wharf, and more coming down in readiness for the *Safoina*, to sail in Feb.—J. COLLEGE.

## AUSTRALIAN MINES.

In consequence of the demand for the *Mining Journal* having far exceeded our publication of last Saturday, which contained the reports from the several mining companies of Australia, we reprint those of Bon Accord and North Rhine, as numerous applications have been made by shareholders to us for copies of the same:—

**NORTH RHINE COPPER MINING COMPANY OF SOUTH AUSTRALIA.**—The local committee, consisting of Messrs. John Beck, Edmund Levi, and Alfred Watts, report, that they visited the mine a second time on Nov. 27, and found the mine, windlass, &c., erected, and other preliminary work completed. A very great improvement had taken place in the lode. The Captain states: "I have got one going over the back of the cross-cut. There is one right up to the present level going north. I found the men driving a lead on the course of the lode on the north level, not in the lode that had been worked on, but 4 ft. west of the present lode. In driving the north level we found one lode to the east and the other to the west, 4 ft. apart. We are at present carrying two lodes in the one level running north. I broke some samples of ore from the lode westward of the present lode, and found it contained green and blue carbonate, lead malachite, and gossan. There is one going down in the level. We are driving north, and the ore we have raised is of a high quality. Another lode running north also shows rich ore." New workings at No. 1 shaft had been commenced, and 2 or 3 tons of good ore raised. The number of miners at the works was 14, and instructions had been given by the local committee to employ 10 more in raising ore. Arrangements had been made to have the ore carted to Port Adelaide via Mount Pleasant, by which a saving of about 15 miles will be effected." In addition to the foregoing, it appears that since the committee visited the mine on Nov. 27 further important improvements have been reported by the captain, especially with respect to a large lode cropping out about 40 ft. west of No. 1 shaft. "I would strongly recommend," says the captain, "a new shaft to be sunk westward of the present shaft at which we are working, for by so doing we would cut the lode we are at present working on, and another lode to the westward, between 12 and 14 ft. wide, which can be traced 200 yards on the surface. Alongside this 12 and 14 ft. lode there is a fair channel of white ground, both under and over the lode. I would suggest the shaft being sunk 22 ft., so that we would be able to cut both lodes at 20 fms. By sinking this we would be 8 fms. under the present bottom, and would be able to work both lodes at once. This would not in any way interfere with our present work, as we could commence working the 14 ft. level. By sinking this new shaft we would be enabled to raise a quantity of copper ore therefrom at once. We are still raising it from the 14 ft. shaft. I forward samples of ore by this day's mail."

The BON ACCORD MINING COMPANY have received the following communication, dated the 11th of December last, from the committee of management at Adelaide, with the purport of the mining captain's reports for the month, from the 10th of November to the 4th of December last:—"At the end of November last the committee of management visited the mine, and made a careful inspection of all the workings above and below the surface. The committee report that they first descended Dickson's shaft, and from thence proceeded south, through the connecting 21 ft. level to Elder's shaft, and on to the extremity of that level east of the shaft, and finding that Captains Killick and Jeffrey were strongly impressed that the rich lode known in the Burra Mine as 'Finlines' was still to the east, and that by prosecuting the work a few fathoms further they would find all probability cut it, they authorised them to continue driving to that extent. In the mine to the west of Elder's shaft, at the depth of 15 fathoms, the committee had the satisfaction of seeing a lode of very considerable extent, containing *bona fide* ore, but not in any quantity sufficient to pay for dressing. The engine-shaft, which was not sunk with the view of cutting ore, but as the most convenient spot for placing and working the engine, has been sunk to the depth of 30 fms. below the ground surface, and the object was by the action of the engine to attain the depth of 30 fms. with as little delay as possible and then to drive west to cut the lode at the mine above referred to at the depth of 30 fms., which it was expected would be rich in ore at that depth. Capt. Jeffrey calculated that he would be able to effect this before the end of January last. Elder's shaft is down 22½ fathoms, and the lode underlying east of this shaft is reported to be very promising, but as the water was sufficient to hinder operations it could not be sunk deeper until the water was pumped out. As you are desirous of keeping it under the water, and we hope will be able to keep the water in for while we work the lode in the 30 ft. level, at which depth, in accordance with present appearances, it should make solid ore. The engine is at present working at very low pressure, and capable of doing four times the work at present required." He adds, that the surface operations are carrying on very satisfactorily, but that those employed labour under disadvantage in not having convenient premises for carrying on the works, or house accommodation for the officers, and concludes by observing,—"We are in the meantime endeavouring to construct the place which we consider an important one for the works, and we have promised, as soon as an unobstructed lode of ore has been laid bare to commence the erection of permanent buildings, which are not more necessary for the comfort of our employees, than for the protection and preservation of the company's property."

In continuation of this very important subject of mining in South Australia, we insert some interesting extracts sent by a correspondent, dated Hindmarsh, near Adelaide, Dec. 10, 1858, descriptive generally of this colony, and particularly of Kapunda and Angaston, near to which is situated the North Rhine Mine:—

"One of the most beautiful spots in this colony is Angaston, about 50 miles north from Adelaide. The first half of the journey to it is performed by rail. The Northern Railway extends from Adelaide across the plains to Gawler Town; there the railway stops, and the hilly country commences. The country is a beautiful undulating plain, and the country has a greener, less parched appearance. Tamindie, a small town through which the road to Angaston passes, is almost entirely occupied by German emigrants, and is quite German in its aspect. There are many German settlers also located in Adelaide, and scattered all over this colony, and being very industrious and temperate in their habits generally, they make good colonists. The road into Angaston from the south is through a fine avenue of anti-colonial trees, between two beautifully wooded hills. It is a beautiful situation and well-built little town. Of all places that I have seen, the place which I like best is the village of Angaston, in the hills of the North Rhine. The buildings are of a superior character for so small a town, and the hills rise picturesquely around it. But Angaston is more closely and completely surrounded by hills, and it wants the charm of water. There is only a poor little creek instead of the Allan Water, which, however, I am become Australian enough highly to esteem, because it is a perennial stream, of which description of streams we have but few; indeed, water is the great want throughout Australia. A drive through the woods around Angaston is one of the most delightful imaginable. They are entirely destitute of brushwood, and the trees grow so far apart as to leave ample space for a carriage driving between them. This, with noble herds of cattle feeding, and birds of the most varied and beautiful plumage hopping through the boughs, and uttering their strange notes, impart to the whole country around the appearance of one vast park." Mr. G. F. Angus, in his work, entitled *South Australia Illustrated*, remarks, with respect to this district, that "the hills surrounding Angaston are opal, iron, copper, and an almost endless variety of mineral substances are found even on the surface of the ground. When these treasures are more fully brought to light, and the riches beneath the soil examined, they will, doubtless, prove of great value, and increase in quality as they are worked deeper." "From the top of some of the surrounding hills (continue our correspondent) a most extensive and strikingly diversified landscape may be seen. About 50 miles from, and in a northerly direction, also lie the Kapunda Copper Mines, whence some of the finest copper in the world is now being brought to market. The road to Kapunda, after leaving the railway at Gawler Town, is very similar to that leading to Angaston. Kapunda possesses far more beauty than I was prepared to see in a mining district. We saw some rich specimens of copper ore at the mine, and copper undergoing all the various processes of refinement. But to describe these things in detail is beyond the scope of this paper. The Burra Copper Mines are 50 miles north from Kapunda. The newly-opened mines on the North Rhine River are in the vicinity of the latter, and several rich copper fields have been discovered lately, promising as rich a return as the Burra; but there is a great lack of capital to develop the country's resources. One cannot help being struck, I think, especially on first arriving in this land, by the striking similarity between its physical characteristics and those of Palestine, as described in the Bible. Like Palestine, it suffers from the dry wind from the desert, which comes to lay waste and destroy. Like Palestine, it has a dry and barren aspect under the scorching rays of its fervid sun, but it is very fertile when watered by the Nile, the olive, and the almond, and the pomegranate. It is a land whose streams of water dry up in the summer and return in the rainy season, and out of whose hills, like those of Palestine, its inhabitants may dig copper."

## OTTOMAN RAILWAY FROM SMYRNA TO AIDIN.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—With reference to the resolutions of the Stock Exchange Committee, which appeared in this day's papers, I beg to state that, when application was made for a quotation of the shares of this company in the Official List of the Stock Exchange, the directors fully believed that they had strictly complied with the rules and regulations of that establishment. The number of shares taken altogether, in England and Turkey, was upwards of 50,000, of which "the deposit" had actually been paid to the credit of the company upon upwards of 45,000, when the application was made to the Stock Exchange to have the shares placed upon the List. This exceeds the proportion of two-thirds required as a qualification; the total number of the company's shares being 60,000. The directors were under the conviction that the shares of the contractor and of the concessionaires were properly included in the number certified; that they were, in every respect, *bona fide* shares, as much as any others taken by the general public, and entitled to be so regarded, the responsibilities and liabilities of all being alike and equal. From this view, however, the committee of the Stock Exchange dissent, although their printed regulations make no exception to any shares. If, therefore, the directors have erred in this respect, it has been wholly unintentional, and they will have no time in making the necessary arrangements for complying with the Stock Exchange regulations, and obtaining the replacement of the company upon the official list. The directors are prepared to give the shareholders of the company at the general meeting, which will be held next month, the fullest information, and to explain to their satisfaction every step which has been taken to carry out the objects of the company.

2, St. Michael's House, Cornhill, Feb. 17. MACDONALD STEPHENSON, Chairman.

**RAILWAYS IN CHILE.**—The following extract from a letter, dated Copiapo (Chile), Dec. 12, 1858, is interesting, as showing what can be done by locomotive power:—"The Sabello and Chanarcillo Railway having been completed, the directors of that company, as well as those of the Copiapo and Caldera lines, have a trip over the road, in order to make a dinner of the company's shares being 60,000. This line is intended to be worked by mules, but this occasion locomotive power was adopted, and the 'Tres Puntas' engine, belonging to the Caldera and Copiapo Company, was selected to perform the journey. The weight of the engine with water was 40,000 lbs.; ditto, on driving-wheels, 27,000 lbs.; diameter of driving-wheels, 5 ft.; ditto, of cylinder, 13 in.; length of stroke, 26 in. Weight of tender at the time of starting from Sabello 25,000 lbs.; four passenger-carriages, 16,000 lbs.; and eighty passengers, 12,000 lbs., making a total weight of 54,000 lbs. The party left Sabello, which is 2193 feet above the sea, at 12:22 P.M., for Chanarcillo, and arrived there, a distance of 37 miles, in 1 hour 17 min. Thus, with an ordinary locomotive, and a mean pressure of 66 lbs. per square inch, and wheels 5 feet in diameter, a maximum gradient of 244 feet per mile was easily overcome, at a speed of 15 miles per hour. This trial shows what may be accomplished in overcoming great elevations by locomotive power, when the engines are constructed for that object."

**THE CENTRAL TERMINUS.**—The proposition for making Fore-street the site for the great central terminus for all the railways communicating with the metropolis is a scheme still quite in embryo. Although the promoters had received so much correspondence on the subject that the advertisement of a general reply in the *Times* was deemed necessary, we cannot learn that any practical steps have been taken in the matter. The enterprise is at present altogether in private hands, and no information being yet ready to publish.

## Mining Correspondence.

### BRITISH MINES.

**ABBEY CONSOLS.**—J. Trewin, Feb. 12: The lode in the 30 west, at the eastern engine-shaft, is producing 7 cwts. of lead ore per fathom, and is of a very encouraging character. The lode in the east end is large, composed of quartz, blende, and a little lead, but not for the present enough of the latter to value. The lode in the back of the 10, west of the said shaft, are worth 9 cwts. of lead per fm. We have intersected the south part of the north lode in the cross-cut in the 20, at the eastern engine-shaft; it is producing some good stones of lead ore and blende, and letting out a great deal of water which is a favourable indication. The lode in the bottom of the 10 are much the same as last reported, worth 9 cwts. of lead per fm., and the lode east of the rise are worth 12 cwts. per fm.

**ALFRED CONSOLS.**—T. Trelease, T. Hosking, Feb. 16: No change in the 140 and 130 east of Davey's engine-shaft, on the main lode, for the week. The south lode in the 190, driving west from Field's engine-shaft, is still split in two branches; the south branch unproductive, north branch a little improved, being about 10 inches wide, mixed with ore throughout; this lode, in the rise over the back of this shaft, is worth 25¢. per fm. This lode in the 110, driving west from intersection, is 10 in. wide, worth 6¢. per fm. The south branch in the 120, east of Davey's engine-shaft, is 2 ft. wide, spotted with ore throughout; this branch in the 110, east of said shaft, is worth 20¢. per fm. This branch in the 110, driving west of cross-cut, is worth 7¢. per fm. The new north lode in the 100, driving east of flookan, is 2 ft. wide, composed of spar and blende, with spots of ore. No other change to notice since last report.

**ANGARRACK CONSOLS.**—J. Barratt, Feb. 15: The pit at Cox's shaft, in the 24, is being cut with all possible dispatch, and the sumpmen will commence a cross-cut south in about a week. The lode in the end west, on the old caunter in the 12, is 12 in. wide, composed of pryan, mundic, and quartz; the same level, on Coomb's lode, in the end east of engine-shaft, is small and unproductive at present; however, it is promising, and ground very favourable for driving.

**BALLYMONEEN.**—S. Evans, Feb. 12: No particular change has taken place in the adit cross-cut north; the ground is rather hard for driving through, and we have already driven 5 fms. 1 ft.; it will take about 7 ft. further driving to cut the copper course.

**BALLYVIRGIN.**—D. Macdonald, R. Fellow, Feb. 10: On Monday last, our setting-day, we set the following bargains:—No. 2 slope to six men, at 7¢. per cubic fathom; it is worth 25 cwts. of lead and 5 tons of mundic per square fathom. The underground slope to four men, at 3¢. per running fathom; it is worth 15 cwts. of rich copper ore, with 3 tons of copper mundic per square fathom. A bargain has been set in the south slope to four men, to take down a portion of the lode left standing on the east footwall, at 4¢. 10s. per fm.; the lode is worth 12 cwts. of copper, 10 cwts. of lead, and 6 tons of copper mundic per square fathom. We have also set a bargain at the Beg shaft to six men, to timber and cut down the same, at 3¢. per running fathom; the shaft is nearly completed, and we propose when it is properly secured to drive on the gossan lode, and slope north from the No. 2 mine. We put 1 ton of lead, 5 cwts. of No. 1 slope copper, 1 ton of No. 2 slope copper, and 6 tons of mundic to pile, and prepared for the crusher 1 ton of No. 1 slope lead, and 2 tons of No. 2 slope lead.

**BEDFORD CONSOLS.**—J. Mitchell, Feb. 17: There is no change of importance to notice in the middle adit level since last report.

**BEDFORD UNITED.**—J. Phillips, Feb. 15: The lode in the 130 east is 4 feet wide, and is worth 2 tons of ore per fm. The lode in the 115 east continues to yield as last reported. The lode in the 115 west is still worth 3 tons per fm. Millman's lode, in the back of the same, are worth 4 tons per fm. We are sinking by the side of the lode at the new engine-shaft. The lode in the 103 west is 2 ft. wide, and worth 3½ tons per fm. Warn's lode, in the bottom of this level, are worth from 2 to 3 tons per fathom. There has been no lode taken down in the 30 west during the past week. There is no alteration in any other part of the mine.

**BODCOL.**—F. Evans, Feb. 12: There is nothing new to report since my last.

**BOILING WELL.**—J. Delbridge, Feb. 12: The old engine-shaft is sunk to the 72; we shall take down the lode now standing and commence driving east and west. The lode towards the bottom of the shaft is 20 in. to 2 ft. wide, when last taken down yielding good work for lead. In the 60 west the lode is large and unproductive. In the 60 east towards the south lode, the ground is favourable; we propose driving the 50 west for ventilation, and proving the ground about the cross-course; the lode in the 50 west, producing stones of lead and blende, and in the 40 west it is 3 ft. wide, producing lead, blende, and mundic, not much to value. In the 50, at Austin's, the lode is 3 ft. wide, with lead and blende. In the 40 east the lode is 1 ft. wide, poor. In Syrett's shaft, sinking below the 30, the lode is 1 ft. wide, with a good lode of lead and blende. In the 20 east south the lode is composed of blende and stones of copper, not to value. The 10, west of Austin's, is in tribute, also the 20, east of King's, and the 20, west of Austin's. In Austin's shaft the ground is very much better for sinking. We hope in the coming month to sink as deep as the 34, and drive towards the lode.

**BOWLEY CONSOLS.**—W. Richards, Feb. 17: In consequence of an improvement in the character of one of the south copper lodes since my last we have commenced sinking a trial shaft on its course, to prove it at a deeper point; the lode in the present bottom is of an extremely promising character, being composed of rich gossan, mundic, and oxide of copper, &c., which, in my opinion, cannot fail to produce great results at a moderate depth. In consequence of the western part of the set we have discovered another tin lode, about 5 feet wide, composed of quartz, mundic, rich gossan, pryan, &c., altogether of a very promising appearance. The late heavy rains have prevented us doing anything on the backs of the other lodes, but as soon as ever we can we shall do so to a great extent, to ascertain the best place for commencing an adit level.

**BREA CONSOLIDATED.**—H. Taylor: We have been blasting our branch of tin this week, and find it is working as well as at present. I think the grains of tin are rather larger; we shall be drawing some more of it to the surface next week. We thought to have started the engine to-day, but it will take two or three days longer before we will write to you again, as soon as it is started. The ground in the shaft and adit is much the same as last reported.

**BROSFLOYD.**—M. Barbary, Feb. 11: Settings for February: The deep adit to drive east of the junction by four men, 2 fms., or the month, at 6¢. 10s.; the lode here is very wide, and spotted with ore. Slopes Nos. 1, 2, and 3, each by six men, 12 fms. each, or the month, at 2¢. per fm. Slope No. 4, east of James's rise, by two men, 3 fathoms, at 3¢. 15s. per fm.; the lode in these slopes will, on an average, yield from 25 to 30 cwts. of ore per fathom. Four men to rise and slope in back of adit south (to relieve or ease Nos. 1 and 2 slopes), 10 fms., or the month, at 1¢. 10s. per fm. The new adit going forward by six men and two boys, at 3¢. 10s. per fm. The surface and dressing operations are as usual. We shipped to-day 20 tons of ore to Sims, Williams, and Co., per *Somers*. I may here remark that during the last two months (ending Jan. 30) we have raised and sold 40 tons of ore, realising 600¢., at a cost of 343¢., leaving a credit balance of 257¢.

**BRYNTAIL.**—J. Roach, Feb. 17: The 35 cross-cut has been driven to the north wall of the lode, in which there is a small branch of barytes and a little blende, but not sufficient ore to value. The lode at this point is precisely the same in character as it is in the 10 directly above it. This level, driving east, on south part of the lode, is in barytes, in which there are solid stones and a mixture of lead ore. The ground has been cut and 38 fathoms of tramroad laid in the 10, and the stuff has been cleared from the rise against the air-shaft, therefore stopping back of the 10, east, it has been commenced; the lode is from 12 to 14 feet wide, and is producing splendid stones of ore, and a mixture of the latter throughout; it must all pass through rough dressing operations. We are not getting on with the 35 cross-cut, as soon as this is accomplished and the ground secured we shall immediately stop back of the 10, east and west of the rise, when we shall get large yields of ore. I have got the dressing operations in a forward state, but the weather is still very much against us. We are crushing and dressing ore as fast as we possibly can, and we shall in a short time be enabled to make satisfactory progress in this department. I expect the ore in the rise, where we have an excellent course of it, will hold to surface or nearly so. I have let the dressing of the ore for three months, at 15s. per ton; I think this will facilitate the progress, and enable us to send a greater quantity of ore to market.

**BULLER AND BASSET UNITED.**—G. Reynolds, Feb. 15: The lode in the 65 east is from 3 to 4 feet wide, composed of argillaceous spar, mixed with mundic and rich spots of blende; in the west end the lode is 3 feet wide, and of much the same appearance. We have commenced to sink the shaft below that level, by six men and three boys, where we have every reason to expect further improvements.

**BWICH CONSOLS.**—R. Northey, Feb. 12: The lode in the 70 west is still in a disordered state. The lode in the steps in the back of the 70 will yield the same as reported for the general meeting. The lode in the 60 west is split up in branches. The lode in the steps in the back of the 60 is worth 7 cwts. per fm. In the 40 east, on the north lode, we have four men driving, at 4¢. per fm.; no change to notice since last reported. At the old mine we are sinking the engine-shaft, and six men repairing the same above adit.

**CAMBORNE CONSOLS.**—W. Roberts, Feb. 15: Nothing new to report this week.

**CARADON CONSOLS.**—W. Rich, Feb. 15: The lode at Thomasine's report is divided in two parts by a horse of granite. The north part is 15 in. wide, producing stones of yellow ore, and has a very promising appearance. The south part is 10 in. wide, composed of fluor-spar, peach, and spots of ore. The ground at the shaft at present is stiff for sinking.

**CARDIGAN CONSOLS.**—J. Sanders, Feb. 14: The 20 west is poor at present; this end has been driven on the north part of the lode, and it is now thought advisable to drive a cross-cut to prove the south part of it at this point. In the 10, east of footway shaft, the lode is wide, and still a part of it further south, which it is intended to cut through. The lode in the best part of the lode to drive on, after which the level will be continued east as far as possible towards Esgrair-fraith, where there is a piece of ground about 300 fathoms in length, all in whole ground below the adit. In the 10 west the ground has been unsettled for a great length, but the part of the lode driving on at present being very easy for driving, and letting out a little more water; it is intended to drive a few fathoms further, to see if any change will take place for the better. There is a cross-cut driving south at Pen-y-Bwch, where the south part of the lode is laid open from 4 to 5 fathoms in length; this place has been worked on tribute for the last two months, and is much more promising, and will yield at present about 1 ton of ore per fathom. The lode in the back of the 20 west will yield at present about 1 ton of ore per fathom for 2½ fms. in length; these slopes are set on tribute. The cross-cut north in adit has been cleared to the end, but the main part of the lode has not been met with in it; I believe there is a part of it still further north, but as the cross-cut is so very small it must be made wider before the driving of it can be resumed; we are at present cutting down the side of 14, and hope to commence driving in the end of a few days. Saturday last being our pay and setting-day, the following bargains and pitches were set:—A cross-cut to drive south from the present end of the 10, east, of footway shaft, by four men, at 8¢. per fm. The 10 to drive east on the north part of the lode, by four men, at 35s. per fathom. The 10 to drive east on the south part of the lode at Pen-y-Bwch, by six men, at 8¢. per fm., and 1¢. 10s. per ton for ore. A pitch in the back of 20 west, by six men, for two months, at 4¢. 10s. per ton for lead ore. A pitch in the 10, east of engine-shaft, by two men, for two months, at 8¢. per ton for ore, and to be paid 3¢. 10s. per ton for lead ore, at 7¢. 10s. per ton to cut the lode. All the above and having to drive for the last two months is very poor, consequently they were not taken on Saturday.

**CARMARTHEN UNITED LEAD.**—R. Sanders, Feb. 16: Harrison







**CONDURROU MINE.**—Capt. N. Vivian's report, under date Feb. 9, concludes: "We have had a full supply of water for the stamps, but during the time it was slack we started all the best work, and have found the remainder very poor, but the ore is a large quantity stamped and prepared for cleaning, which will be available again at the next meeting, but we will not disguise the fact that our tin ground is not so productive. The principal pitches, which yielded for a long period a great quantity of tin, a now comparatively poor, so that we cannot estimate at the present prices more than 800 or 900*l.* worth in the two months; but the falling off in the tin will be more than compensated for by the increase in the copper ore."



## MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

**WHEAL BASSET** sampled, on Tuesday, 292 tons copper ore, valued at 2200*l*.  
**EAST WHEAL BASSET** sampled, on Tuesday, 162 tons of copper ore, estimated value 2400*l*.

**GRAMBLER AND ST. AUBYN** sampled, on the 9th inst., 124 tons copper ore, calculated to realise 2400*l*.

**DRAKE WALLS** sold Jan. tin ore on Saturday last, which realised on an average (for the 18 tons) 75*l*. 3*s*. 9*d*. per ton, which will leave a fair profit for that month.

**ROSEWARNE CONSOLS** sold, on the 11th inst., black tin amounting to 140*l*. 1*s*. Several new branches have lately been cut, and the mine working very well. They are now negotiating for another stamp of 12 or 16 heads, and as soon as they get to make regular returns from them, profits may be expected.

**NEW CROW HILL MINE** sold 1 ton 0 cwt. 1 qr. 9 lbs. lead ore, at 17*l*. 15*s*. per ton; and 30 tons 9 cwt. 0 qrs. 10 lbs. muncie, for 25*l*. 3*s*. 11*d*.

**BREA CONSOLIDATED**.—The progress making at these mines is all that can be desired, and gives great satisfaction to the proprietors. This mine turning out as well as so early a period is doing much to restore confidence in Cornish tin mines at Leeds, where the non-success of similar attempts has lately shaken it. The report from the mine will be found in the usual place; it will be seen from it that the grains of tin are rather larger; these are what are usually called bolt tin, and does not require stamping so finely as the generality of tinstone, by these means curtailing expenses, and preventing considerable waste in dressing.

**GREAT RETAILACK**.—The lode continues much the same as when I last advised you, and estimated worth 5 tons per fathom.

**SITHNEY WHEAL BULLER**.—There is an improvement in the 80 end east, producing fine stones of tin. The other ends are just the same as I last advised. There has been two breakages since my former letter—one on Sunday last, when the fat-rod at surface broke near the main bob, and on Monday the drag of the steam-whim. These misfortunes are similar to those at Wheal Vor.

**WHEAL CHARLOTTE**.—The dividend on Wednesday was 10*s*. per 1024th share. The shares were subdivided into 5120. The mine looks first-rate, having the ore in the 60 much sooner than was expected.

**WHEAL MART**.—The dividend here this week is 1000*l*. or 10*l*. per 100th share. The shares were subdivided into 500, to bring them within the reach of a greater number of investors. The mine is, perhaps, the safest in Cornwall for a lasting profitable mine.

**BUDNICK CONSOLS**.—I find they are driving east from the new shaft, and have a good lode in the 30. They have also discovered a large elvan course underlying the former, and about 80 fms. from the western boundary of East Budnick. The tin lode is producing good saving work, and runs through East Budnick. They are about to sample 25 tons of lead and 4 tons of tin, which will give them a profit of 200*l*.

**EAST BUDNICK** is a very promising piece of ground, and I believe will require but little outlay to bring it into the dividend list. The Budnick Consols great lode, which is now so productive, runs through the entire set, and will be intersected in the 36 by a very short cross-cut.

**AT NEW WHEAL VOR** they had a serious breakage on Wednesday: they broke the fly-wheel shaft, fly-wheel sweep-rod, and bent the piston-rod.

**NORTH FORTESCUE**.—The costeaning of this most promising piece of mineral ground is proceeding satisfactorily. Several east and west lodes have already been laid open, in addition to the north and south courses, which are known to traverse the sett. These lodes are large and well-defined, with a north underlie; we are now tracing them on the back, to ascertain their bearings, as also to see whether the copper lodes leave the lead lodes, or, on the contrary, the lead lodes leave the copper lodes. This mode of proceeding is necessary in order to fix a permanent shaft in the right spot to command the proper development of the several lodes. We deem it both safe and wise to proceed cautiously, so that having once done our work we may not have to do it over again. The situation of the mine is good, being a little over a mile from the granite, and the stratum is a highly mineralised clay-slate. The lodes already intersected are remarkably strong courses, varying from 3 to 5 ft. in width, carrying beautiful quartz, prisms, muncie, and gossan, with a small portion of copper in the east and west lodes, while the north and south lodes promise well for lead and silver.—W. VERRAN.

**WHEAL ADAMS**.—A report received from Capt. Hambly states that the mine is now perfectly dry, thus confirming the statement of Capt. Moore.

We are informed, on good authority, that the new scheme for working the **PENCONSO CONSOLS** will be taken up with avidity. Several shares have been applied for by London brokers, amongst whom the mine had hitherto not found much favour. The exclusive character of the management was probably the cause.

**WHEAL CHARLOTTE**.—The lode in the 60 is cut rich 3 fathoms west of the engine-shaft; this is upwards of 20 fathoms before the lode was met with in the level above. The opinion of the best practical authorities is an immense deposit of very rich ore will be met with a few fathoms further west. In the 30 this lode was first cut. In the 40 the lode is worth 20*l*. per fathom for 45 fathoms west, and 15 fathoms east of Trevelyan's shaft; and 20*l*. per fathom for 30 fathoms, commencing 30 fathoms west of the engine-shaft. In the 50 it is still richer, the ore is met with 25 fathoms west of the engine-shaft, and west nearly to Trevelyan's shaft about 80 fathoms. The end is worth 18*l*. per fathom, tributary price. This end is still 50 fathoms from the extreme west of the ore ground in the level above. And in the 60 it is richer still, the run of ore ground being met only 3 fathoms west of the engine-shaft; therefore it will be seen that from the engine-shaft in the 60 to the extreme west of the ore ground in the 40 there are upwards of 140 fathoms. It is also worthy of remark, that whereas the lode was only 12 in. wide in the 30, it is now 3½ feet wide in the 60; also the copper was worth only 7*l*. per ton in the 30, it is now worth 12*l*. per ton in the 60. The engine-shaft from this latter level will resume sinking to the 70 in a few days. There are 15 tribute pitches set in the back of the 40, at an average of 7*s*. 6*d*. in 1*l*. And the lode in the back of the 50 to be stopped at 35*s*. per fathom; this is about 1*s*. 3*d*. in 1*l*. There are about 100 men at work, and the cost of the mine about 500*l*. including agency and merchants' bills. The last sale realised about 1800*l*. the next will be greater still, and the samplings increase regularly for the next 12 months.

**TREBARNVAH**.—This mine, which adjoins Wheal Charlotte, is looking very well. The amount spent since the commencement of the company is about 11,000*l*.; the amount realised from sale of ore, 14,800*l*.; up to the south lode 9000*l*. had been expended; making a total expenditure upon the development of the mine of upwards of 35,000*l*. Great improvement had taken place in the 40, which was at about the same depth as that from which Wheal Charlotte was returning its present riches.

**CUMBERLAND BLACKLEAD MINE**.—Since operations were commenced the mine has been cleared, levels retimed, houses rebuilt, &c. About 10 tons of coarse wad is at surface, worth from 50*l*. to 60*l*. per ton as it now stands; also a parcel of wad of a better quality sent to the company's store-house in London, and a small parcel of very rich wad on the mine. An arrangement is being made to supply the Government for the casting, machinery, &c., also a barrel is forwarded to Mr. Morgan, manager of the crucible manufactory at Lambeth, who consumes about 500 tons per annum. Other consumers will also be supplied. The pencil-makers will be supplied with the purest wad. Mr. Wilson, of Greta-bridge, pencil-works, Kewick, being in communication with the trade for that object. The directors are about to visit the mine, accompanied by Mr. Riley, chemist, of Oxford-court, Cannon-street, and other scientific men, to ascertain the uses the wad can be applied to, beyond those already known. Arrangements will also be made to convert the waste and coarse wad into blocks and powder for purposes already known, of which there is a large quantity on the mine. The silver-lead and copper veins are valuable additions. Water power to any extent is available on the mine.

**SULPHUR MINING PROSPECTS** have been for some time rather unfavourable; but an extensive enquiry amongst consumers proves that a better demand must shortly arise for the produce of the Wicklow and Cornish mines. The manufacturers of a certain class of sulphuric acid have been using up the pyrites accumulated for many years at the various coal mines: these stocks are now nearly exhausted, and the regular supply from those sources will not afford a tithe of the quantity required. These circumstances hold out good prospects for such properties as the Carrport Mine, and that of Mr. Cox, now being opened near Arklow. A sample of the sulphur from the former mine has been tried by a manufacturer at Leeds, and found of superior quality, being devoid of arsenic, which appears to be a serious drawback when found existing in the samples. Ere long these new mines must take a prominent position. The proposition for working them has been well received, and will be supported by capitalists and consumers. Surely the Old Sperris, Nauglies, &c., might be profitably wrought for sulphur only: being so near a sea port, the land transit is a trifle, and freights low. Why not work them?

**VICTORIA IRON COMPANY**.—An attempt is being made to resuscitate this company, whose works were unfortunately destroyed by a landslide near Whithy. The proposal is to issue preference shares, many of which will, doubtless, be accepted by the old shareholders; but it is feared some difficulty will be experienced. The accident certainly ought not to injure the real value of the mine.

**THE TESTIMONIAL TO MR. J. Y. WATSON**.—The second list of subscriptions will be published in the Journal of next week; and the third and final one on March 26. All communications to be addressed to Mr. J. H. Murchison, 117, Bishopsgate-street Within.

**COAL MINES—THE GOVERNMENT INSPECTORS**.—In the House of Commons, on Thursday, Mr. Ingham moved for Returns of the number and names of Inspectors of Coal Mines for England, Wales, and Scotland, with their respective salaries, and the districts for which they act:—

Of the number of coal mines within each several districts respectively, and of the visits of inspection in every district since the Act 18 and 19 Victoria, cap. 108:—  
 And, for the same period, of the number and dates of accidents in every district whereby more than one death was occasioned, and of the nature of every such accident; distinguishing the cases in which the mines had not been inspected by a Mine Inspector previously to such accident, from the cases in which the mines had been previously so visited, so far as the said visit was furnished by the several Inspectors.

**STEAM COAL**.—Mr. Liddell also moved for Copies of the Report of Messrs. Miller and Taplin, on the Evaporative Power and Economic Value of Hartley Coal; and, of similar report, by the same gentlemen, on the Properties of Welsh Steam Coal, presented to the Board of Admiralty.

**MEXICAN AND SOUTH AMERICAN COMPANY**.—On Wednesday the question of compromise with the large creditors came on before the Master of the Rolls for confirmation. One holder of 50 shares appeared to oppose. The further proceedings were adjourned by the Judge till this day. On Thursday an examination in the matter of some alleged contributories came on before the Examiner in Rolls court.

**CULCHOTE COPPER MINING COMPANY**.—The liquidators have convened a meeting for Feb. 26, when they will state why the winding-up has not been completed.

**NEW ENGINE COAL MINING COMPANY**.—Mr. Henry Hart, of Dover, has presented a petition to the Lord Chancellor, praying for the dissolution and winding-up of this company, and which is expected to be heard before Sir W. Page Wood on Feb. 26.

**PARAGON AND SPERO COAL MINING COMPANY**.—Mr. H. Hart, of Dover, has presented a petition to the Lord Chancellor, praying for the winding-up of this company, and which is expected to be argued before the Vice-Chancellor on Feb. 26.

## The Mining Market; Prices of Metals, Ores, &amp;c.

METAL MARKET—LONDON, Feb. 18, 1859.

COPPER.				£	s.	d.	BRASS.		Per lb.
Copper wire	... p. lb.	0	1	1	—	—	Sheets	... 10½d.	11½d.
ditto tubes	...	0	1	2½	0	—	Wire	... 11d.	—
Sheeting & bolts	...	0	1	0½	—	—	Tubes	... 13½d.	14d.
Bottoms	...	0	1	1	0	1½	FOREIGN STEEL.		
Old (Exchange)	...	0	1	1	—	—	Swedish, in kegs (rolled)	...	Per Ton.
Best selected	... p. ton	115	10	0	—	—	(hammered)	...	(nom.)
Tough cake	...	112	10	0	—	—	Ditto, in faggots	...	21 0-22 10 0
Tile	...	112	10	0	—	—	English, Spring	...	18 0-23 0 0
South American	...	105	0	0	107	0 0	QUICKSILVER	... p. lb.	0 11-0 2 0
IRON.		Per Ton.				SPELTTER.		Per Ton.	
Bars, Welsh, in London	...	7	5	0	—	—	Foreign	...	22 5 0
Ditto, to arrive	...	6	17	6-7	0 0	—	To arrive	...	21 17 6-22 0 0
Nail rods	...	7	10	0	—	—	SINCE.		
Stafford, in London	...	8	0	0	9 0 0	—	In sheets	...	29 0 0
Bars ditto	...	8	0	0	9 10 0	—	TIN.		
Sheets ditto	...	9	0	0	9 15 0	—	English, blocks	...	126 0 0
Sheets, single	...	9	10	0	10 0 0	—	Ditto, Bars (in barrels)	...	127 0 0
Pig, No. 1, in Wales	...	3	15	0	4 15 0	—	Ditto, Refined	...	130 0 0
Refined metal, ditto	...	4	10	0	5 5 0	—	Banca	...	131 10 0-132 0 0
Bars, common, ditto	...	6	0	0	6 5 0	—	Straits	...	129 0 0-130 0 0
Ditto, railway ditto	...	6	5	0	6 10 0	—	TIN-PLATES.		
Ditto, Swed. in London	...	13	10	0	16 0 0	—	IC Charcoal, 1st qua. p. bx.	...	1 12 0-1 13 0
In stock to arrive	...	3	15	0	2 15 0	—	IX Ditto 1st quality	...	1 18 0-1 19 0
Pig, No. 1, in Clyde	...	2	19	0	3 2 6	—	IX Ditto 2d quality	...	1 10 0-1 11 0
Ditto, in Tyne & Tees	...	2	19	0	3 2 6	—	IX Ditto 2d quality	...	1 16 0-1 17 0
Ditto, Forge	...	2	17	0	6 1 0	—	IX Coke	...	1 6 0
Staffordshire Forge Pig	...	4	10	0	5 0 0	—	IX Ditto	...	1 12 6
Welsh Forge Pig	...	3	0	0	3 5 0	—	Canada plates	... p. ton	15 0-15 5 0
LEAD.		Per Ton.				In London; 20 <i>s</i> . less at the works.			
English Pig	...	22	15	0-23	0 0	—	Yellow Metal Sheathing	... p. lb.	10½d.
Ditto sheet	...	23	10	0	—	—	Westerstedt's Pat. Met.	... p. cwt.	2 2 0
Ditto red lead	...	24	0	0	—	—	Indian Charcoal Pigs		
Ditto white	...	30	0	0	—	—	In London	...	7 10 0
Ditto patent shot	...	26	10	0	—	—	At the works, 1 <i>s</i> . to 1 <i>s</i> . 6 <i>d</i> . per box less.		
Spanish	...	22	5	0-22	10 0	—			
American	...	none.							

**REMARKS**.—In our market there has been very little change, and the position of metals generally is unaltered. The demand for the most part has been steady but quiet; sellers remain firm at our quotations.

**COPPER**.—There is less doing in this metal, and orders are executed with caution; buyers are tenacious of burdening themselves with anything beyond requirements for present purposes. The foundries are not so actively engaged, and old copper is rather a drug upon the market. English cake can now be bought in large quantities at fixed rates, and sellers would readily effect sales if buyers came forward. The trade at the moment is entirely confined to *bona fide* orders.

**IRON**.—Rails are sluggish, but ironmasters oppose any further reduction in price. Merchant bars have been in moderate request, at ruling rates. Staffordshire descriptions have not undergone any alteration. Swedish bars have been bought freely, and little or nothing can now be purchased under 13*l*. 10*s*., taking assortments complete as imported. Stocks here are diminishing, and for an early arrival there is none offering. Scotch pigs have receded in value, m.n. having been sold at 51*s*. 3*d*., they have since improved, and may now be quoted 6*d*. per ton higher, the closing price on "Change being 51*s*. 9*d*., cash, g.m.b., f.o.b. in the Clyde.

**LEAD**.—The late advances in prices have been steadily upheld; and, although the transactions in our market have been of a limited character, no concessions in price are reported—22*l*. 15*s*., pig; sheet, 23*l*. 10*s*.; red, 24*l*.; shot, 26*l*.

**SPELTTER**.—Lower prices have been accepted, both for short arrival and on the spot, also for spring shipment. Holders are already beginning to fear the result of the spring arrivals in this market; and, as we may now be shortly receiving shipments, probably prices will continue to assume a downward tendency until the great bulk has passed off the market; but, to prevent stocks accumulating and to effect business, sellers will doubtless have, in a great measure, to concede to buyers' limits.

**TIN**.—English, fixed rates, as before. Banca is quiet but firm, and Straits are reported as sold for arrival, at 130*l*. per ton.

**TIN-PLATES**.—Prices are unaltered, and the demand very quiet.

**STEEL**.—Swedish keg is all sold, and arrivals are wanted.

**QUICKSILVER**.—This metal continues at present in abeyance; no disposition has been come to as to future prices.

**LIVERPOOL, FEB. 17**.—The past week has been characterised by considerable quietness in the metal market, and prices are the turn easier. With few exceptions makers are not well supplied with orders, and quotations, consequently, favour buyers. A slight rally in the price of Scotch pig-iron took place in the early part of the week, and 52*s*. 6*d*., cash, was obtained. The market afterwards became weaker, and the quotation of to-day is 51*s*. 9*d*. for mixed numbers, f.o.b. in Glasgow. The shipments for the week are 9820 tons, against 7389 tons in the corresponding week of last year. The good demand for English tin continues, especially for refined. For foreign tin a firmer feeling obtains, and full prices have been realised. Tin-plates are in fair request at unaltered rates. Copper shows no change; the demand is good. Lead is improving; orders are more plentiful, and better prices are obtainable. The following are the quotations:—Iron: Merchant bar, 6*l*. 12*s*. 6*d*. to 7*l*. 10*s*. per ton. Tin: Common block, 126*l*. per ton; common bar, 127*l*.; refined block, 133*l*.—Tin-plates: Charcoal, IC, 32*s*. to 32*s*. 6*d*. per box; coke, IC, 25*s*. 6*d*. to 27*s*.—Lead: English sheet, 23*l*. per ton; English pig, 22*l*. 15*s*.—Copper: Cake and tile, 112*l*. 10*s*. per ton; best selected, 115*l*. 10*s*. per ton; sheeting and bolt, 1*s*. 0*d*. per lb.—Yellow metal sheathing, 10*d*. per lb.—Steel: Blistered, 30*l*. to 40*l*. per ton; spring, 18*l*. to 24*l*.; cast and shear, 50*l*. to 60*l*. per ton.

**GLASGOW, FEB. 17**.—We have nothing of particular interest to report regarding our pig-iron market, which still remains very dull. A trifling rally took place on Saturday last to 53*s*. 3*d*., cash, and since then the price has not varied more than 6*d*. per ton. No. 1, Gartsherrie, 55*s*. 6*d*.; No. 1, g.m.b., 51*s*.; No. 3, g.m.b., 50*s*. 9*d*.—Shipments: Foreign, 3089 tons; coastwise, 6731 tons = 9820 tons, against 7389 tons last year.

**NEW YORK, JAN. 29**.—In Scotch pig-iron the sales have been very limited, the stock in hand not exceeding 300 tons. We note sales of 50 tons for arrival at \$27-50, at six months. American has been in demand, and sales to the extent of 200 tons have been effected at \$22-50, cash, also 1000 tons of Philadelphia at \$23, at six months. Bar is quiet but firm, and is quoted at \$55 to \$55-50 for refined, and \$46 to \$47, at six months, for common. We note sales of refined English, TPK, to arrive at \$57, at six months. In Sweden prices are better, with sales of 80 tons at \$95, being very scarce; 75 tons to arrive have brought \$90, at six months. Of English sheet the stock is small, and holders are asking 3½*c*. for singles, and 3½*c*. to 4*c*. for doubles and trebles. Ingot copper is less active, but prices continue firm, with sales of 40,000 lbs. of Baltimore at 24*c*., nett cash. For Lake there is no demand, and is held at 24½*c*. cash. Chili pig is more enquired after; we note sales of 100,000 lbs. in Boston at 23½*c*., at six months, being an advance on previous quotations. Old sheathing is dull at 21½ to 22*c*. for prime lots. Block tin is quiet, holders being firm at 30*c*. to 30½*c*. cash. Straits, 30*c*. to 31*c*., at six months. Tin-plates are more active, with sales of 900 boxes 1-3 X at \$9-37½ to \$9-50; also 500 to arrive at \$9-44; 300 ditto IC coke, Y brand, at \$7-12½; and 100 ditto, coke terne, at \$6-70, at six months. Spelter is quiet, holders declining to sell under 5½*c*.

**BOSTON, JAN. 31**.—Our correspondents (Messrs. Dupee, Beck, and Sayles) write:—The sales of mining shares through the month have been unusually large. The continued good accounts from Ball's stamping and washing machinery at the Cooper's Fall's Mine, the confirmation of the favourable reports of the mines working upon the Pewabic vein at Portage Lake, the upward tendency in the price of ingot copper, and the general speculative feeling of the time, have all aided in the movement. Ingot copper is held at 24½ cents, four months. The Keweenaw district has, during the past season, produced 2124-7 tons; the Portage district, 1116-5 tons; the Ontonagon district, 2645-4 tons; and individuals, 10 tons = 5896-9 tons, which reduced to ingot copper is 4100 tons, worth at \$460 per ton, \$1,886,000.

In the **COAL MARKET**, during the week, the amount of business done has not been large, but in most instances prices were fully maintained. On Monday 26 ships were at market, of which 20 were sold, the prices being—Best Wallsend, 19*s*. 6*d*.; second quality, 16*s*. 3*d*.; manufacturers', 12*s*. to 14*s*.; Hartley's, 14*s*. to 15*s*. On Wednesday 46 ships were at market, and 37 sold, the prices were—Best Wallsend, 18*s*. to 19*s*.; second quality, 17*s*. to 17*s*. 9*d*. Yesterday 78 ships were at market, and

60 sold, the prices being—Best Wallsend, 17*s*. 9*d*. to 18*s*. 6*d*.; second quality, 16*s*. to 17*s*. 3*d*.; manufacturers', 12*s*. 9*d*. to 14*s*. 9*d*.

In **SALTPETRE**, during the past week, there has been but a moderate amount of business doing, last week's prices being fully maintained. We note sales of 1480 bags of Bengal, 7½ per cent. refraction, 40*s*. 6*d*.; 3½ per cent. refraction, 42*s*.; 8½ per cent. refraction, 41*s*.; 6½ per cent. refraction, 42*s*. 6*d*.; 4½ to 3½ per cent. refraction, 43*s*.; 300 tons of December sailing were sold at 49*s*.; and 50 cases of Bombay, refraction 7½ per cent., for 39*s*. During the week, 215 tons have been landed, and 490 tons delivered, leaving 2794 tons in stock, against 5467 tons at the same period last year.

It appears to be the general opinion among politicians of the Government stamp that we shall not have war, and a greater feeling of security is stealing over men's minds in public, and the result will be a greater amount of confidence in business transactions, a revival of legitimate speculation, and the avoidance, as we hope, of all foreign loans. There are plenty of ways near home of investing capital so as to get good interest for money, at the same time that important branches of national industry are supported, without lending money to foreign Governments, and thus supply them with means to disturb the peace of Europe, and to unsettle our commercial relations. During the week the **MINING SHARE MARKET** has been active, and well supported, and a great demand for several mines, such as East Russell, East Basset, Rosewarne, Grambler and St. Aubyn, Hingston Down Consols, Pendean Consols, Ludcott, Wheal Wrey, North Roskear, and a few others. Some of the dividend mines are lower in price, but chiefly owing to the greater amount of attention paid to progressive mines. Hingston Down Consols have been largely dealt in, and the price leaves off at 3½ to 4½; the mine has greatly improved, and from private sources we hear that the lode in the 110 fm. level is considerably better than stated in the official reports, and the ground, which was formerly so hard, and set at 30*l*. per fm., has now changed for the better, and set at only 18*l*. per fm.; the 100 fm. level, which is considerably ahead of the 100, is yielding 4 to 5 tons per fm.; and as, moreover, there have been large buyers of shares, we may fairly presume that the improvements are considered as of some importance by parties in the district; but great complaints are made by the London shareholders at the meagreness of the official reports sent to the office. Let our readers turn to the columns of mining reports, and read that of Hingston Down, received at the office of the company on Thursday morning, and can they judge from it that important changes have taken place in the mine, such as are likely to render it one of the best in the district? We think not; and on behalf of the complaining shareholders we call the attention of the committee to the subject. If the resident agent be incapable of writing a report, or of properly explaining the true state of the property, it is time for another to be appointed, for we protest against a system by which even the meagre reports now sent to the office are written for the agent, and not by him, though he signs them when written. We are informed, too, that the local managing director wrote to the office one day that the lode was worth 6 tons per fm., and the very next day the agent's report arrived, and valued it at 2*s*. 6*d*. only! Levant, 80 to 100; at the meeting, on Tuesday, the accounts showed a credit balance of 1027*l*. 6*s*. 11*d*., after paying a dividend and bonus of 800*l*. (5*l*. per share); not a single line is furnished to the shareholders as to the state and prospects of the mine, which is much to be regretted, as the shares in consequence have no market value, and the out-adventurers are kept in a state of complete ignorance as to the value of their property. Worthing shares, 7*s*. 6*d*. to 8*s*. 6*d*.; the company have received advices from Australia, and the report of the mining operations satisfactory; the ore raised during the month was 39 tons 1 cwt. 1 qr., yielding a product of 20 per cent.; the lode in the shaft is worth 1 ton per fm., and 11 tribute pitches working. Tolcarne, 16*s*. 6*d*. to 17*s*. 6*d*.; Vale of Towy, 12*s*. to 13*s*.; Devon Great Consols, 46*s*. to 47*s*; West Basset, 20 to 21; Great Wheal Vor, 4 to 4½; North Frances, 6 to 7; South Caradon, 430 to 450; South Caradon Wheal Hooper, 4 to 1. East Gunnis Lake, 25*s*. to 27*s*.; the mine seems to be improving; the lode in the 75 west is 8 ft. wide, worth 1 to 2 tons per fm.; the stopes in the back of the 49 fm. level, 2 tons, the 36 east, 3 tons. Rosewarne continued flat till near the end of the week, when the price advanced to 65, 67½, and left off at 67½ to 70; no official intelligence has been received of any improvement, but it is supposed from the sudden demand that the 70 is looking better. East Russell shares advanced from 7 to 11, and leave off at 10½ to 10½; there has been great excitement in the shares during the week; the lode in the 88, to which we have so often referred, has been cut rich, and another very important discovery made in the 66 west, where some tributaries near the end which had been stopped discovered a course of ore, worth 40*l*. to 50*l*. per fm. It is now the opinion of practical agents that this north lode has never been seen near Hitchens's shaft except in the 45 fm. level, which is 120 fms. west of the present course of ore, and a cross-cut is being extended at Hitchens's to prove the lode, and if it be met with rich in about six weeks, it is impossible to say what the value of the mine will be. Perhaps no mine of late years has been subject to so much correspondence and variety of opinion as East Russell, and even practical men have disagreed, and been led into vituperation on the



The copper in the ore expresses the nett price per ton of copper paid to the miner.



# THE PROGRESS OF MINING IN 1858, BEING THE FIFTEENTH ANNUAL REVIEW.

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## Notices to Correspondents.

\* Much inconvenience having arisen, in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be regularly filed on receipt: it then forms an accumulating useful work of reference.

**TIN SMELTING.**—The monopoly so long carried on in the county of Cornwall in the smelting of tin ores, is at last, we are informed, about to be broken up by a spirited individual in the west of England, who has recently purchased and put in order some extensive works, and who is prepared to commence operations immediately. We wish him success in his new undertaking.—ANTHONY POLLER: Truro, Feb. 15.

**PATENT PROCEEDINGS.**—May I again enquire, through the intervention of your Journal, when Mr. Robert Oxland is about to give us his description of his patent for the separation of wolfram from tin? It is now two years since he promised this, and yet we are uninformed. Must we conclude, as Dr. Percy said at the School of Mines two years ago in one of his lectures, that this is merely a compilation from Dr. Aiken's *Chemistry*? Some whom I have conversed with state it is merely a plagiarism, while others are led to believe it is a piracy.—NON-GRATUITUS.

**RIPPON TOR MINE.**—Absence from home has prevented my seeing your Journal for the last two months; but my attention has just been called to a report inserted on Nov. 20 on Rippon Tor, signed "N. Ennor, Plymouth." I am not aware of any person of that name but myself, and the public are led to believe it came from me. In order to set them right, I now ask you to insert this notice, wherein I beg to state that I never wrote a single word of that report, or knew anything of its publication until my attention was recently directed to it. But it does appear strange that the leading men of this concern, occupying the position they do, should countenance such illegal proceedings, knowing, as they must, that it was false from the foundation, and unknown to me.—N. ENNOR: Wells, Feb. 16.

**WEST CARADON.**—"Adventurer" can obtain all the information he requires by addressing Mr. W. J. Dunsford, the secretary, at the offices, Adam's-court, Old Broad-street. No useful result could follow publicly answering such enquiries.

**THE PIEDMONT MINE.**—"F. A." (Clity).—We should think Dr. Francfort's report might be relied upon. He has long enjoyed a high reputation in America, and is undoubtedly a thoroughly practical miner. As to his knowledge of the locality, we can only state that he has been for some months engaged in superintending the mining operations of the Victor Emanuel Mining Company, and that some thirty or forty Cornish miners are placed in his charge.

**EAST TREFFUS.**—"EAST BASSET."—Since Mr. Crofts has attributed the important (not fact) mistake to his inspection of a map of the Buller and Basset district, for aught I know, as far as Mr. Crofts is concerned, he is not so much in error. Perhaps there are some maps of mining districts in London which had it not been for the type employed might just as well be considered as maps of any part of Middlesex. Mr. Crofts has now further stated that East Basset lode is represented as dipping south, and probably this may render an assumed "important fact" a doubtful one, in which case Mr. Crofts has been misled by his informant, and that the public must now look to me for the real state of the question. In compliance therewith, I would inform Mr. Crofts and the public that the adit level on the back of East Basset lode traverses the whole length of Copper Hill sett, and the lode only underlies into East Basset at about 50 fms below the adit level. Hence it may be easily discerned that the underlie of East Basset lode is north, and not south, as stated by Mr. Crofts. And further, the lode on which the shaft is now sinking at East Treffus also underlies north; and the back of East Basset lode is a great part of a mile to the south of that of East Treffus. I hope that Mr. Crofts in future will succeed in obtaining more correct information on local matters.—COUSIN JACKY: Feb. 15.

**MINING IN WESTERN AUSTRALIA.**—A few months since you referred to a company for working mines in Western Australia, and I should be glad if you would inform me where the mines are situated, what are their prospects, and the London offices.—D. A. [The offices of the Geraldine Mining Company of Western Australia are in Ingram-court, Fenchurch-street. Mr. Henry Grellet, of 33, Lime-street, one of the directors, was formerly a resident in the colony.—ED. M. J.]

**WHEAL CHARLOTTE.**—"A Shareholder" must append his name to his statements.—"A Lover of Truth" must show his sincerity by authenticating his letter.

**UTILISATION OF SELPHUR.**—In the *Mining Journal* of March 13, 1858, an invention, due to M. Dupont, for turning the fumes of sulphuric distillation into the manufacture of smelting and refining metals, &c., to account was described; and it was then stated that Messrs. Oeschger, Mewbach, and Co., of Paris, were the proprietors of the invention. We have not ascertained that the invention has been carried out on a commercial scale, and presume, therefore, that it has proved a failure.

**PORT PHILLIP GOLD MINING COMPANY.**—Can any of your readers inform me the object of withholding the dividend on these shares, when already registered? I hold some, bought seven years since, in scrip, and now a transfer and the expenses of stamp and fees are demanded from me. Surely there is no lurking intent to make calls, as such a proceeding would lead any one to suppose?—J.

**THE PORT PHILLIP AND COLONIAL GOLD MINING COMPANY.**—The anonymous scribe who addressed the Port Phillip shareholders in your last Journal should explain what he means by writing about the company's "elaborate machinery and apparatus for dressing many thousands tons per week of auriferous alluvial soil of exceeding richness, being in a virgin state." Now, I think every one with a smattering of mineralogy knows that gold found in an alluvial soil in a virgin state is free gold, being produced from the decomposed quartz after the fluvial era, and that this is just the kind of gold that does not require either elaborate machinery or apparatus for its separation from the soil. But as regards the Port Phillip Clunes Mines, I believe this auriferous alluvial soil of exceeding richness, &c., only exists there in the imagination of your correspondent. In conclusion, I would add that no one is more rejoiced than I am to find that a more favourable tide in the affairs of the company has set in, and if we had an honest, upright, and independent home management, this tide would lead us on to fortune.—CHRIS. RICHARDSON: Feb. 15.

**MONT CARBON MINING COMPANY.**—Some years since this company was ushered into public notice under most favourable auspices. A grant of land, abounding in timber, and a large coal field, was opened to our industry. Mr. Gerald Hutton, of Tonkhouse-yard, was the President of the company, and an influential direction was taken. Mr. Griffin, a civil engineer, formerly of the Irish Magnetic Telegraph Company, was dispatched to the scene of operations. Shortly after he had been there a change took place in the direction, and we had a new board formed. Whether the shares were disseminated over the provinces or not I am unable to say; sufficient it is for me to note that we had not only a board of town directors, but likewise persons who were in the government, one of whom resided in Glasgow, while the other was located in Dorsetshire. Reports were forwarded to us of the value of our property. We were told that a market for our coals could be found in Cincinnati. A great mining authority, Prof. Ansted, was dispatched to the scene of operations, and although at that period some doubts were thrown upon the capability of our agent, yet the property was reported most valuable, and, if properly worked, likely to return a large profit. Money was raised by bonds. Capt. Smith, one of the sellers of the property, after the issue of an action, which it is not necessary here further to allude to, departed to the land of Stars and Stripes. After this we had a committee of investigation, one of the most prominent members of which was Mr. Thomas Coxhead, the secretary of the Great Luxembourg Railway. The results of their investigations we never received. The next phase of our existence was that Mr. Francis Passingham, of Truro, had been dispatched to Virginia to report on the property. I have his account now before me, and from this I am led to believe that there is a mine of wealth to be obtained, which, either through mismanagement, neglect, or want of funds, has been allowed to be disregarded and lie fallow, until some persons possessing greater acumen and more capital can take up the property, and develop the capabilities it is reported to possess. We are subsequently told that Lord Charles Clinton had advanced on the security of the property 7000*l.*, and that Mr. Francis Bannock was a director. The panic of 1857, however, caused this latter gentleman to secede from the company. On enquiring, a few days since, at the office, I find that they are closed, and no notice of removal is given. No one can state where the secretary and the offices are removed to. In this dilemma I have no other recourse than appealing to the *Mining Journal*, in order to discover if any one connected with the company can afford any assistance as to when the association was dissolved, if ever such a step has taken place, and what are the liabilities, either here or in America. As a purchaser of shares at a premium, I think it would be only just to have a right to demand how the money has been expended, and it would be only an act of fairness to all parties if this information were accorded to us through the medium of your columns.—S. F.

"Inquirer" would be glad to know if an adventurer in a mine is not legally entitled to be furnished with the names of his co-adventurers, and also with their places of residence and occupations, and whether the secretary cannot be compelled to supply them; also what is the remedy in case of his refusal to do so.—[We do not think "Inquirer" is entitled to what he asks; he is entitled to see the cost-book and transfers at the offices of the company, and this will give him the required information.]

**GOLD IN ENGLAND.**—The question has been again mooted, and several of our eminent men have expressed a belief that the precious metal may be found in the ores of lead, galena being one of those which they specially refer to. I have seen myself several specimens from Dolgelly; might not a trial be made there? Surely this would be a more legitimate investment than embarking money in foreign adventures, where but little control can be exercised over the superintendents, who in many cases are appointed from motives of influence, and not of competence.—S. A.

**REFINING FURNACES.**—Dr. Belte, one of the proprietors of the Elbe Smelting Works, near Hamburg, has in that city small furnaces for the purpose of refining gold and silver sweepings. A communication to him, no doubt, would receive due attention, and the information required would, in all probability, be immediately forwarded.

**ST. AUBIN AND GRELLS.**—"An Old Subscriber" should write to the broker through whom the shares were purchased.

**LEVANT MINERAL COMPANY.**—The remarks made on the proceedings of the company in your last week's Journal I consider extremely apposite. We were led at one time to expect that under the auspices of the present direction the whole of the mineral wealth of the Turkish empire would be laid open to British enterprise. It appears, however, from the measure report issued at the extraordinary general meeting, that it was merely a question of home expenditure. No one can dispute the integrity of any of the gentlemen on the board; both Sir Baldwin Walker and Mr. Lavard have not only an Asiatic but likewise a European reputation: great things were expected of them, and, therefore, let us hope that at the ordinary meeting in March we shall receive such a report that will not only reassure the confidence we have never lost in the direction, but at the same time prove to us how energetically they have been prosecuting the works which their first prospectus contemplated.—M.

**GEOLOGICAL STUDIES.**—One of the best works on this subject is Sir Henry de la Beche's "Geological Manual"; Phillips's "Mineralogy" is likewise a standard work. Berzelius on the "Use of the Blowpipe," was translated some years since. Brande's "Manual of Chemistry," is also very useful. Mr. Weale, of High Holborn, would be enabled to provide the necessary works on this subject.

**ACADIAN CHARCOAL IRON COMPANY.**—Legal proceedings are being taken against all shareholders in arrears of call. The office is at 47, Old Broad-street, and the secretary will be glad to afford all necessary information to shareholders.

**TO THE SHAREHOLDERS OF THE QUARTZ CRUSHING COMPANY (LATE AGUA FRIA).**—I am an old Agua Fria shareholder and debenture holder, and agreed to take shares in the Quartz Company for my interest in the Agua Fria, and pay the necessary call. We are called upon to wind-up the company on Feb. 23. I think before we agree to this that a certain number of shareholders should be appointed as a committee, to investigate all accounts, confer with the present directors, and make a report to the general body of shareholders as to what they advise. If we have a valuable property, do not let us sacrifice it; much better to subscribe the amount of debts, if reasonable, and then consider what is best to be done. Certain parties are always ready to drive the shareholders to a forced sale, purchase the property for a small amount, which has cost thousands, and then start the whole affair with large profits to themselves. I am unable to attend the meeting, and offer these remarks for consideration. Do not be in a hurry.—A SHAREHOLDER.

**ST. ENNOR CONSOLS.**—This mine was started in 1851; can some one interested inform me of the result? I am informed the certificate was incorrect, as it is impossible to limit the liability of a shareholder under the Cost-book System; but I should like some particulars.—Z.

**TAVY CONSOLS.**—In reply to "Delta" (of Tavistock), I beg to state that, upon my obtaining the management of this valuable property, the first object was to procure the lease as granted by His Grace the Duke of Bedford and Mr. Stode, Messrs. Fisher and Codd being present at the general meeting on Jan. 25, when they stated the former lease had been prepared, but not executed. The latter was held by Mr. Fisher as trustee, and should have been handed to the committee. I am in communication with the solicitors to the Duke of Bedford, Messrs. Wink and Dalane, of Gray's Inn, upon the subject, and start to obtain the lease from present date in lieu of the former, at 1-15th debts.—T. FULLER, Sec.: 51, Threadneedle-street, Feb. 17.

Mr. Campin's communication on Patent Reform and Reformers shall appear in our next.

**WORTHINGTON MINING COMPANY.**—It would be satisfactory if the directors would state by what conveyance their late despatch was received. If by Southampton, their late publication can be understood; but there are evil-disposed persons who imagine that jobbery is at the bottom of everything in the least irregular.—L.

Received.—St. Pierre Foley—James Metherell, Lady Bertha—"Expectant," Tavy Consols—"R. B." Rosewarne United—"One and All," Port Phillip and Colonial Gold Company.

We are compelled to postpone the letter from our Wolverhampton correspondent.

**EARLY PUBLICATION OF THE MINING JOURNAL.**—In compliance with the frequently expressed wish of many of our subscribers to receive the MINING JOURNAL on Saturday evening instead of Sunday morning, we have at length succeeded in completing our arrangements for publishing in time for the Saturday morning's mail. Henceforth the MINING JOURNAL may be obtained at our office at FIVE O'CLOCK A.M., or can be delivered by any Newsmen in the metropolis with the morning papers.

With last week's MINING JOURNAL we gave a SUPPLEMENTAL SHEET, which contained—The Patent Law, and its Reformers; Trevithick in Costa Rica; Outlines of Practical Science; The Mining and Smelting Interests of Chile; Mr. Cuell's Statistics of the Mining Interest; Cornish Mining Photographs—Rosewall Hill; Legitimate Mining; On the Progressive Applications of Machinery to Mining Purposes; On the Artificial Formation of Oxymuriate of Copper (Atacamite) and the Sulphates of Copper; Distillation of Shale; Steam Generators; Improvements in Wheels and Skids; Economy in Coal, &c.

## THE MINING JOURNAL

Railway and Commercial Gazette.

LONDON, FEBRUARY 19, 1859.

When we look at the state of the iron manufacture of this country, we are justly proud of it as one of the greatest branches of our industry; when we speak of the CRAWSHAYS, the BAILEYS, the GUESTS, we congratulate them on their wealth; but if we were to go a step further, and ask what has been the fate of the men greater than capitalists, who are the authors of this progress, we cannot give a satisfactory account, for we should have to recount the names of men much more familiar than those of CRAWSHAY, BAILEY, and GUEST—the names of CORT, MUSHET, CRANE, NEILSON, HEATH, and ROGERS, of Nant-y-Glo. What a melancholy history is that of each of these men, by each of whom tens of thousands of our population are yearly maintained. A CRAWSHAY or a GUEST may die, leaving behind him an extravagant heir by whom the fortunes of the firm may be shipwrecked, vast works be doomed to desolation, his workmen sent adrift, and his family be consigned to its original condition of obscurity; but though a CORT or a HEATH dies, the solid fruit of his ingenuity remains as a perpetual possession to the commonwealth, and to give employment to the masses and freights to our shipping, whatever works may perish or whatever firms may fail. Thus, to such men a debt of eternal gratitude is due: what is paid to them is injustice, litigation, and robbery; for, instead of giving them their portions of the substance they themselves have created, we rob them in one way or another of their other property.

The history of the great CORT, which we have so frequently brought before the public, and for whose family we have had to beg a subsistence, is no more melancholy than the others, sad as his was, for he was reduced to beggary by the representatives of the community, the Government; and yet his inventions are the root of one great branch of our national wealth and of our national defences; for justly do we rely upon iron, as other states upon their fertile nurseries of men. For the aged daughters of this national benefactor a scanty pension has been extorted from the Civil List; for the aged son we have endeavoured to obtain a subscription of the iron trade, and, after the most painful exertions, have not succeeded in obtaining a sufficiency. As to MUSHET, his life was a contention with pirates; and although he was the fruitful author of most important improvements in our ironworks, no mark of public estimation was bestowed upon him. CRANE, of Yniscedwin, has created new resources for that nursery of our strength—South Wales. Having gone through his contest with the villainy of pirates, he is now allowed to enjoy some of the earnings derived from the practice of his own inventions, undisturbed by any public honour or reward, unless it be that he is graciously permitted, without the Court of Chancery or Holy Inquisition forbidding, to place a crane, the emblem of his name, on his own iron. BAILEY and GUEST got baronetries for no political services to the State, but for having, by means of the inventions of other people, had the opportunity of acquiring vast wealth, and becoming members of the Commons House of Parliament, in which they did not shine. No Minister has sought out CRANE or NEILSON with the offer of a baronetcy or even a knighthood. Whether either is a justice of the peace or deputy-lieutenant depends on the chance of his being of the same political creed as the lord-lieutenant of his county. NEILSON, who has been publicly distinguished for his invention of the hot-blast—"hot-blast" is familiar all over the country—was rewarded by his subjection to a series of litigations in the English and Scotch law courts, unparalleled, we believe, even in those nests of iniquity. It is not strange that there are benevolent men who propose to deprive inventors of

patents, because patents are only a cause of delusion and litigation, subjecting the unfortunate possessors to ruin, and it being supposed they might in most cases earn a better livelihood by engaging in some other business, and leaving the real owners of their inventions, the pirates, to make fortunes by them. NEILSON, happily, is not in the workhouse, because, like CRANE, he has managed to make some property from the remnants of the earnings of his great inventions, but nothing was wanting which could realise to him the bitterness of persecution.

This brings us to HEATH, less happy, who died broken-hearted in the midst of his sufferings, having spent a handsome fortune on experiments and in law, and endowed this part of the empire with a branch of the steel manufacture, and India with the iron industry. This great man had the misfortune, beyond the trade pirates, to have a special enemy in the sharks of the law, the hostility of one judge being sufficient to deprive him of any returns for his invention. To the inventor law and equity are indeed names of delusion, for he can obtain neither of them. The name of HEATH will be an eternal shame to Sheffield, whose manufacturers robbed him, unless some consciousness be shown of their crimes. It is a small matter for Sheffield, enriched by the proceeds of the cast-steel process, to raise a statue to HEATH, to subscribe an endowment for his family, and to grant them small annuities from the borough fund. There is, we believe, not a man of science in the country who does not attest to the rightful claims of HEATH, and how nobly does ROGERS defend them in his *Iron Metallurgy*.

So we come to ROGERS himself, one of these living benefactors. We have not to seek him in the tomb, where CORT and HEATH were laid in sorrow, but we may still consider what honour we can award him, and what encouragement we can bestow upon his labours; and, doubtless, there is good opportunity for this, for the name of ROGERS, of Nant-y-Glo, must be better known to the man of science and the operative than in the cabinets of Ministers. If iron were discussed in the House of Commons instead of bribery, corruption, jobbery, and party squabbling, the name of ROGERS, of Nant-y-Glo, might be mentioned by a South Wales Member, and be received with honour; but such chances do not befal inventors, for they are not politicians. There is no Tory hot-blast process, no Whig blackband formation, and no Radical cast-steel—a matter deeply to be regretted, for then there would be some chance for the great workers in the fields of industry.

There is some chance for the name of S. B. ROGERS being known, for we believe we are correct in saying that his improvement in the preparation of coke was put in action at Pontypool, in Monmouthshire, half-a-century ago, by date 1808, and that he has been an assiduous worker ever since for the improvement of iron metallurgy. We shall briefly recapitulate some of his labours on that head, and first we shall refer to the invention of iron bottoms for puddling furnaces. This has likewise been in operation as long as half-a-century, and has greatly benefited the trade, according to some calculations, to the extent of many millions. This great invention, we believe, actually went begging, Mr. ROGERS having to beg that it might be adopted, and, as it has been successful, of course he has not been rewarded. We may safely say that he never received a shilling for it, and we fear we may say that he is never likely to receive one. With the intense heat of furnaces they are liable to rapid destruction, and the hearths have to be covered with artificial bottoms. These for iron furnaces in the last century used to be of sand, as in some other metallurgical processes, and the furnaces could then only turn out 8 or 10 tons of puddled bar per week; but now, by the use of iron bottoms, the weekly yield of puddled bar is raised nearly threefold—to 20 or 24 tons per week; and the effect of this on our national industry may well be conceived. Without CORT's invention and this, we could not compass the supply of our railways, steam-engines, and iron ships, the great instruments of our wealth and strength. The application of blackband and of hot-blast have likewise correspondingly increased the yield, and thus the labours of one of these inventors contribute to the vast enlargement of the results in co-operation with the labours of the others. After CORT has doubled the work, comes ROGERS to double that; then NEILSON increases this result, and the produces go on augmenting in ratio.

The improvement in the manufacture of coke just referred to is an important one, but perhaps the chief of Mr. ROGERS's labours is his book on *Iron Metallurgy*, in which he has made public various inventions and improvements in the manufacture of both iron and steel, and the application of which it may be justly considered will still further seriously affect the produce of those materials. To these objects the endeavours of a life have been directed, but with small encouragement; for here again the inventor has to become a missionary to propagate his inventions, which go begging; and instead of being readily received as the recommendations of a successful man and public benefactor, a variety of reasons are ingeniously found for trifling with them. Doubtless, if Mr. ROGERS tries these at his own expense, and makes a present of them to the trade, they will then work them, and put the profits in their own pockets. One very good reason for neglecting these inventions is, that the author was for 20 years with Mr. BAILEY, at Nant-y-Glo; and it is very shrewdly said that if he had thought it worth while he would have adopted them. This is a very plausible reason, for the temptation to a manufacturer of making use of a man's invention is a very great one; but there might be many fair reasons; for we understand it to be the fact that during those 20 years Mr. BAILEY was ever promising Mr. ROGERS to begin "next spring." This was indeed the great inducement to Mr. ROGERS to remain in his establishment.

The chief inventions which result from Mr. ROGERS's observations, and which he seeks now to introduce, may be placed under six heads. First of these is the working of blast-furnaces with new fluxes and prepared furnace mixtures, so as to increase the yield; second, the smelting of pig-iron with a soft blast; third, a new mode of refining pig-iron; fourth, puddling the improved metal and pig-iron with a flux; fifth, applying the gases from the smelting-furnaces for various purposes; and, sixth, lighting the whole of our ironworks with gas free of expense, except for plant. The mere enumeration of these objects, all important and all practical, should meet with attention, when proposed by a successful man, but they scarcely meet with any notice, and the inventor frets his life idly away, unrewarded for his past services, and, what perhaps such a man feels most, without the opportunity of carrying out what he knows to be most essential improvements, and which he justly feels to be capable of making a revolution in the manufacture.

Mr. HARRY SCRIVENOR, and other parties, have written what most suppose to be histories of the iron trade, and their readers exult as they find recorded its wonderful progress; but there is another history still to be written, in which shall be portrayed not the successful result of the inventions, but the struggles of the inventors, which, beginning with DUDLEY and not, we fear, ending with ROGERS shall faithfully detail the treatment of these illustrious men, and the conduct of the iron and steel masters towards them. Simple neglect, the omission of duty, is the least of the charges to be brought against them generation after generation, for the commission of positive crimes in the combinations against NEILSON and HEATH must be brought against them. Then, too, what have they to set upon the other side, for they have done nothing for any one of their benefactors, and nothing for the promotion of metallurgical science? We say nothing, for we are well aware of the trifling subscription for CORT's family. They have not raised, as some trades would, subscriptions to try any important or promising invention, or to reward the inventor—as, for instance, the coal trade did in the case of the safety-lamp, when they gave contributions to DAVY, STEPHENSON, and CLANNY. There are in the country statues or busts of WATT, STEPHENSON, TREVITHICK, WEDGEWOOD, TENNANT, and many other benefactors of our national industry; but there are none of DUDLEY, CORT, MUSHET, CRANE, NEILSON, HEATH, ROGERS, or the numerous benefactors by whom this great trade has been really and truly built up. Now, if there be any one trade in the country which can afford funds for any purpose it is the iron trade, for speculative as it may be, and fierce as its competition, the whole trade is not kept in a state of starvation as some are, but there are steady profits, and colossal fortunes soon accumulated. The trade, too, is one well organised; the ironmasters have their quarterly meetings, and they can speak out in strength on any class question, and it is easy for them to raise a fund for experiment or reward.

The ironmasters are quite content to let the Government or the community reward inventors, and the Government do nothing, and the community naturally leave the matter to the Government, or the class immediately benefited. Property has its rights—that the ironmasters well understand, for it gives them commissions of the peace, aldermanships, the deputy-lieutenant's uniform, shrievalties, seats in Parliament, and baronetcies; but it has been said property has its duties as well as its rights, and we would remind the ironmasters of this, that they may exercise both, and we give them a good opportunity with Mr. ROGERS, and a profitable one. They may either award him a testimonial for his furnace bottoms, or they



may raise a subscription for trying some, or all, of his great iron processes, for the general benefit of the trade. Of all acts of liberality those may be most truly said to have their own reward which are exercised in behalf of the inventor. Boulton reaped a handsome fortune, and attained just respect, for giving the aid of his capital and industrial enterprise to JAMES WATT, whilst the latter was enabled to pursue a career of experiment of great value to general science, and to the business in which they were jointly engaged. Had Watt sooner obtained the assistance of ROBECK or BOULTON, how much more might he not have done for the advancement of mechanical art? The thousand pounds GEORGE STEPHENSON received for the Geordie safety-lamp, small sum as it was, he did not put up in a napkin, or save it to keep his family in idle gentility; but appropriating part for the education of his son, to become his helpmate in his scientific pursuits, and the successor of his labours, the main portion he devoted to the formation of a locomotive factory, which has since become a source of wealth to the country, for from hundreds of locomotives have been sent to all parts of the world, and other factories have achieved like results. It was the proceeds of the invention of a musical instrument that Professor WHEATSTONE applied to experiment, first on the acoustic, and afterwards on the electric telegraph, and if he has since obtained a large pecuniary reward, from Government or the community, he has received nothing.

When we consider that Mr. ROGERS, after half a century of labour, is at an advanced age, we should think the ironmasters of South Wales more particularly will be desirous that he shall not depart from us without himself carrying out the inventions which he has perfected—that he shall not live comforted solely by the prospect of posthumous fame, when his life may be made happy by the attainment of success. There are circumstances in the situations of such a man which more particularly command our sympathy. Men advanced in life we cannot delay and procrastinate, and put off with hope deferred, with the prospect that if life permits, and he lives many years, something may be done for him, or that there is still time to wait till his experience is matured. Mr. ROGERS has years to labour for us, but no years to wait; he has no old experience to gain, and no ideas to mature: the harvest is ready, and we tremble lest it be lost—for fear there should be no BOULTON among the millionaires of Wales, and one more man shall die to whom we cannot pay the living debt of gratitude.

The "DERRICK," which not many days since lifted a ponderous mass of machinery from the spot where it was deposited on the banks of the Thames, and transmitted it, poised high in air, to the *Leviathan*—we like old names, even though they may be coupled with certain unhappy reminiscences—upon the deck of which it placed the mighty burden with a gentleness and caution that in earlier times would have been very possibly attributed to the "black art," and voted awfully instinctive, is a type of the science which presides over the labours of civilised nations in this year of grace '59. Great Britain more than any other country is influenced by this extraordinary genius; and among the countless varieties of her industry, which never ceases to adapt itself to the progress of mankind, it fortunately occurs that Mining, in its application of machinery, has the greatest and most incontestable claim to precedence in improvement. The Cornish engine marks an era in the scientific world, and the constructive capabilities of our people set no bounds to that sphere of science in which they pursue their characteristic avocations. It would be a libel on intelligence to doubt the unlimited inventive and adaptive qualities of the mining community, and while their indomitable perseverance is ever increasing the material wealth of this country, their intellectuality adds to our moral superiority as a people, and exemplifies the great practical truth, that industry arises superior to all opposition, and inevitably overcomes all the difficulties of its position.

In the use of the steam-engine, however ingenious we have been in its construction, we are far from perfect. This remark must not, at the same time, be considered as especially applied to mine engines; for although accidents of the most deplorable nature have occurred from boiler explosions at mines, still it is but just to admit their steam appliances are in the aggregate more cautiously and intelligently supervised than in other departments of reproductive labour.

However, be that as it may, faults do exist with mining people in their management of steam power for which it would be difficult to find any palliation. That others commit them to a greater extent is no excuse for our errors, and when accidents occur, inflicting loss of life and property, and entailing misery on whole families, and that such accidents arise from the ignorance and incompetency of persons to whom the working of steam-engines is but too frequently confided, it follows that owners and others who have ratified the appointment of such persons as engine-men should be held responsible in the eyes of the law, as they certainly are in that of moral justice. It is a criminal abuse of power in a manager to nominate any person to so responsible a position who is ignorant of the awful consequences of any neglect of certain rules respecting the boilers and other portions of machinery. An intelligent and experienced correspondent, in our last Journal, enquires "What is that class of men with the care of three-fifths of our land boilers in their charge composed of, as far as knowledge of their responsibility is concerned?" They are declared to be men at once ignorant and dangerously incapable. But in a matter thus involving the security of our labouring community, who are dependent on steam-power for the safe and successful issue of their toil—in fact, where life is so risked, and yet so recklessly sacrificed, through ignorance on the one side and sordid negligence on the other—we cannot do better than present to the reader the graphic description afforded by the gentleman we have already alluded to. "All who run may read," as the old proverb has it, but we venture to assert that none will turn away from a perusal of the following without being convinced of the great importance of the subject under discussion:—

"Make"—writes our correspondent—"one trial; go into a boiler-house; and see the man with his coal-shovel in his hand, ask him how many horse-powers does his engine represent?—He does not know. How many horse-power his boiler?—Followed by the same answer. What pressure of steam have you?—I do not understand the lever, Sir, and I never heard what pressure we work at. Have you a blow-off cock?—No, Sir. How do you keep your boiler clean?—We take the gland from the pipe in the bottom, and blow out the mud. How often do you do this?—When we have time we do so every month, but we have been very busy lately, and I think it is now nearly three months since we cleared it out; I wish we had time to do so, for I find it hard work to keep the steam when it is so dirty as it must be now. I suppose you take care to keep the feed water up to prevent accident?—Well, Sir, our water-gauge gets so choked up that I cannot tell how high it is exactly sometimes, until I clean out the tube. Well, suppose when you have cleaned your gauge you find nothing but steam to issue from it, how do you manage?—Why, then, Sir, of course I let it in more feed!—Exeunt visitor."

And in time, too; for when would a man's life be worth an hour's purchase where such a system could be tolerated? Again, it is asserted that one boiler was found on inspection to have become through culpable, yet by no means extraordinary negligence, half full of solid stone, which was endeavoured to be got rid of by the very original scientific medium of boring and blasting: this was effected, the crystallisation, however, revenging itself on the sapient solvers of its continuity, by taking away with it a portion of the boiler itself. All this is a matter of serious consideration; the more so, that it would appear that the grand secret of boiler explosions, which scientific men have laboured so hard to penetrate, lies in the vitiated system which people have adopted of confiding to ignorant men, because their labour can be had at a low rate, duties which require intelligence and practical knowledge for their direction. Such recklessness ought to be suppressed by the strong hand of the law, and such ignorance visited both on the employer and the employed with the utmost severity. Are we to have no end of these fatal practices? In certain quarters, the question "What is the use of Inspectors?" is beginning to be somewhat testily mooted, and not without some show of urgent reason. For ourselves, we are of opinion that the system of mine inspection should be what in modern times is termed "centralised;" it should be governed by some responsible and practical body, a point within the circle from which would those lines of action the officials should pursue on a principle of duty and discipline. Irresponsible emulation never fails to give rise to jealousy and obstinate prejudice; and where every man rides his own hobby, the eccentric equestrianism that ensues is sure to "stop the way."

To something of this sort may be referred much of that fatal negligence which has occurred among the mine-class tenders of land-boilers, and that laxity of management in which such destruction of life has resulted. Noticing this feature of the system for the present, *currente calamo*, we trust to the good sense and humanity of all persons using steam-power for an equitable administration of their right to make appointments in the labour they pay for. And we feel a moral confidence, that having thus pointed out the culpability of giving a place as engine-man to an incompetent person it will for the future be avoided, and in our mining community become one of our obsolete errors.

A little rational caution, and a more practical observation of the duties of employers to their people—to the working classes generally—will soon lead to a solution of the mystery of "Boiler Explosions."

While on this subject, reference may be appropriately made to a private

letter from British Columbia, purporting that in a few months there must, according to present appearances, occur a considerable demand for machinery, and steam-power is talked of as fated to be called into very active requisition. This may at first sight seem a little too much on the go-ahead principle, but there is one great difference existing between this new El Dorado and the gold regions of both Australia and California: in the latter places at the commencement all was anarchy and confusion; in Columbia, on the contrary, there is peaceable organisation, and where such combination is we are not prepared to doubt the most sudden and startling evidence of success and prosperity. The gold tracts of this dependency promise rich and steady returns, the "takes," under the rudest operations, range from \$10 to \$50 per diem, and now that the winter in British Columbia is reported to be as bearable as others in which there are considerable populations, settlers, prepared for whatever wind or weather may occur, will be found rapidly making permanent homes in the auriferous localities. With reference to the gold already estimated upon shipment returns, and the purchases made by the Hudson's Bay Company, the amount of British Columbian gold reaches in the aggregate to \$695,000; but taking into consideration the large quantities of the precious metal reserved by the miners themselves, the yield cannot be far under \$1,000,000.

That such a country, then, as Columbia will take a high place among British colonies there cannot now be a shadow of doubt, and that a great demand on the manufactures of the parent country will be a consequence for many years is equally certain. Victoria in a short time must become a place of note in the commercial world. In that country (Columbia) are all the elements of "food for enterprise;" under British laws, equitable but strict, society there will soon grow in strength, and organise in magnitude. Habits of industry will be the best protection of peace and order, and to all who congregate to work the gold resources of those vast and rich regions, we say peaceably combine. Peaceable combination is the "Derrick" which will move the mountains.

At length we are in possession of the Board of Trade returns of the exports and imports of the United Kingdom for the years 1856, 1857, and 1858, and for the month of December in each year. They were issued only yesterday, although, as we mentioned last week, they have been ready for publication for some weeks, so that there has been no reason for the delay beyond the mere formula of presenting the annual statement to Parliament. It is an inconvenience to the commercial community so easily obviated that it is to be hoped that in future these documents will be laid on the table of the House on the first night of its reassembling, if this routine business is to be continued.

The total exports for the year ending Dec. 31, 1858, are declared at the value of 116,614,331*l.*, which is a decrease, as compared with 1857, of 5,451,776*l.*, but an increase over 1856 of 787,383*l.* The total amount for 1857 was 122,066,107*l.*, and 115,826,948*l.* for 1856. For the last month of 1858 the aggregate of the value was 10,058,769*l.*, which is an excess over the same month of 1857 of 2,910,728*l.*, and of 13,543*l.* over Dec., 1856. The general decrease for the entire year of 1858 is not, consequently, so much as might have been expected, for the public were certainly not prepared for so large an amount of increase for the month. The returns may consequently be considered favourable, showing, as they do, that there is a steady revival of the exports, and that encouraging returns may be anticipated as respects the coming spring trade. This is the more apparent from the returns as to gold and silver, to which we refer hereafter.

The largest proportion of the total decrease for the year has resulted from metals and metallic manufactures, for of the deficiency of 5,451,776*l.* the sum of 3,890,639*l.* is represented by these articles; but this can be easily accounted for, when it is borne in mind what a cessation of operations has occurred in various parts of the world in the several works which lead the demand on this country for metals and metallic manufactures in all their branches. The relative position of mining industry, as compared with the general trade, is nevertheless most important; and, notwithstanding this heavy falling off, comparatively, the value is equal to about two-ninths of the whole, the total of metals, &c., being no less than 26,265,735*l.* as compared with the aggregate of 116,614,331*l.* of every branch of the export trade of the United Kingdom. The details will be found, as usual, in another column, and in a tabular form, that the difference in each item may be seen. There was a slight increase in machinery, as respects "steam-engines," but in "other sorts" there was a falling off to counteract this improvement in this special branch. In "brass" there was likewise an advance over 1857 of 11,340*l.*, but in all other descriptions there was a balance on the other side.

Of the total exports of last year the value sent to foreign countries was 76,389,337*l.*, and 40,224,994*l.* to British possessions. The number of vessels employed for this purpose was 42,831, with a collective tonnage of 9,936,705, or an average of about 233 tons per vessel; of these 23,455 were British ships, which represented 5,873,936 tons, or an average of 252 tons per vessel, consequently there were 19,379 foreign vessels, with a tonnage of 4,062,719, or equivalent to about 209 tons per vessel. Of the 23,455 British vessels only 5361 were engaged as between this country and British possessions, so that no less than 18,094 were occupied in the trade with foreign countries.

With respect to the value of the imports and exports of the precious metals, we find that the balance is greatly in favour of this country, both as respects the month of December and the year then ending. In the shorter period the imports represented 3,147,730*l.*, while the exports were 2,714,985*l.*, so that there was an excess of imports over exports of 432,745*l.* In the year the total imports are set down in value at 29,493,190*l.*, and the exports at 19,628,876*l.*, consequently giving a balance of 9,864,314*l.* to the credit of this country. The total exports of gold and silver in 1857 amounted to no less than 33,586,968*l.*, therefore the shipments of 1858 were less than those of 1857 by no less than 13,958,092*l.*, and than which nothing can be more indicative of the favourable position of the country, for while affairs are adverse gold necessarily goes out, and comes in when the demand is to this country for its various articles of exports.

**MINING EDUCATION.**—The Bristol School of Mines has issued its syllabus of lectures for the ensuing term. The subjects selected are—"The Geology of Gloucestershire," by Mr. Handel Cossham; "Patent Steam-Breaks, and Facts connected with Over-winding," by Mr. Heth Ogden; "Furnace Ventilation," by Mr. Mark Fryar; "Safety-Lamps," by Mr. D. Mackie. "The Method of Working and Ventilating Collieries in the Newcastle District" (a paper), by Mr. A. Ross; "Gases in Mines, Safety-Lamps, &c.," by Mr. Lionel Brough; "Colliery Machinery," by Mr. M. Fryar; "The Economy of Steam" (two lectures), by Mr. A. Vickers; "Different Modes of Working Coal" (two lectures), by Mr. A. Palmer; "Terrestrial Magnetism," by Prof. A. M. Higgins; "Colliery Management," by Mr. M. Fryar; "The Iron Ores of Somerset and Wilts," by Mr. G. C. Greenwell; "The Iron Ores of the Bristol District," by Mr. T. Coomber; and "The relative quantities of Coal raised per man in the different districts of Great Britain, and the best means of promoting the economy of labour in the working of Coal Mines," by Mr. H. Cossham. This list of lectures cannot but be regarded as satisfactory to all who really wish to see the position of the working miner improved, and furnishes another satisfactory proof of the practical utility of the Bristol School, which, through the perseverance of those connected with its management, has already gained the enviable notoriety of being the best model upon which schools for the education of working miners can be constituted.

**FOREST OF DEAN.**—(From our own Correspondent.)—On Tuesday, the 15th, the usual half-yearly meeting for the receipt of tonnage rents, and arrears upon coal and iron ore raised, and certain or "dead rents," upon unopened gales, due to the Crown, was held at the Speech House, in the Forest of Dean, where there was a fair muster of the leading men in the trade, or their representatives. At the conclusion of the business, the principal payers were invited to dinner, which was presided over by Mr. John Atkinson, Her Majesty's Deputy-gaveller, after which the customary and time-honoured loyal and local toasts were drunk. It is usual on these occasions to discuss any matters affecting the interests of the mineral proprietors; and it was thought by many that the opportunity would have been taken to introduce and debate the projected "Monmouth, Dean Forest, and Worcester Junction Railway," but which was not the case. The cause of this lies in the fact, that the promoters have not yet sufficiently matured their arrangements; nor have they issued their prospectus, a preliminary announcement as yet only having appeared. Of the vast importance of the project there are not two opinions; and when the time arrives for the scheme to be fully and fairly brought before the public, and the immense accommodation and benefit it will diffuse clearly understood, we have no doubt it will have the strong support of the Crown, and the energetic assistance of the clear-seeing capitalists of Gloucestershire, Herefordshire,

and Worcestershire, as well as those of Monmouthshire, Glamorganshire, and South Staffordshire; for it would confer large advantages upon all, and command a traffic to which it would be difficult to place a limit. We need hardly say that the prospectus is anxiously looked for.

#### THE MINING AND INDUSTRIAL INTERESTS OF CORNWALL.

(FROM OUR CORRESPONDENT IN WEST CORNWALL.)

FEB. 17.—The standard for copper was last week about stationary. The warlike aspect of the times is reported in the journals of the manufacturing districts to be exercising a baneful influence on trade, and checking its onward progress; and we must wait a little for the subsidence of these rumours, and the restoration of confidence, before much improvement will take place. There is, however, a general expectation and belief that there will be a good spring trade in metals, and that copper, as well as other metals, will advance. Should war, however, break out, a different state of things will overspread the face of the country, and no one can predict the result. At the present time metallic ores are bringing good prices, and if peace continue there is no probability that they will be lower for some time, but the contrary.

The mining market is not particularly active, though investments are constantly taking place in the better class of shares, and dividend mines well maintain their position. There was a meeting of the adventurers on Monday at Dolcoath, when a dividend of 7*l.* per share was declared, leaving about the same balance as before. The previous dividend, in December last, was 5*l.* per share. The north part of main lode is exceedingly rich, the levels east and west at the 254 being each worth 100*l.* per fathom. This is one of the finest lodes of tin that has ever been seen in the county. There is also a very large extent of rich tin ground discovered and laid open; and at other points, where the lode is not so rich, the appearances are very promising, and indicative of improvements. The immense deposit of tin at the bottom of this mine is a great encouragement to neighbouring mines to persevere in sinking below their copper deposits. At Camborne Vean, the indications in the 212 fm. level are reported to bear a strong resemblance to the lode in Dolcoath at the depth where that mine was changing from copper to tin; and, looking at its very promising character, the shareholders should not hesitate to make the outlay necessary to develop the mine in depth. If they are not willing to do so, there will not be any great difficulty in getting up another company to accomplish the work, and, in all probability, open up a rival to Dolcoath in tin productiveness. At Stray Park, also, although the mine is heavily in debt at present, there is strong inducement to persevere, from the masterly character of the lodes, and the probability of a tin deposit being met with in depth. At Condurrow Mine, the tin ground is represented to be less productive; but the falling off will be more than compensated by the increase in the sales of copper ore. The lode discovered south of the main lode may be easily worked at different points, and, from what has already been seen of it, is likely to produce a considerable quantity of copper ores. At West Seton meeting, on Tuesday, a dividend of 7*l.* per share was declared, being the same amount as at the previous meeting, and carrying to next account a little additional balance. This mine is remarkable for the small balances left after payment of dividends; in the present instance the balance was only about 86*l.*, and at the previous meeting it was 72*l.* The ores to be credited to the next account will amount to 680*l.* more than at the present one, which is partly due to the improvement in the standard since November and December last. The mine was never more productive than it is at the present time. On the south lode, the 110 west is producing 12 tons of copper ore per fathom, and the 100 east is yielding 10 tons per fm. There are four stops in the back of the 100 fm. level, yielding in the aggregate 38 tons of ore per fm., and at different other points the mine is rich. There is a very good report also from Great Wheal Busy; it is stated that the lode in the 90 fm. level east is producing 11 tons per fathom. East Basset shares continue to hold a good price, being still about 190*l.* and upwards. South Tolgus shares have advanced, in consequence of an improvement in the mine. Pendennis is looking well, and shares have advanced. Wheal Margaret and Providence shares are firm. North Pools are low. East Tolgus, 60*l.* and upwards. Carn Brea, about 70*l.* North Roskear, 25*l.*

The agriculture of the county is in a good condition. The winter has been very mild, with a considerable amount of rain recently, but the farmers are well forward in their field work. The early-sown wheat is looking well, and the pastures have given an unusual amount of feed for this time of the year. Green food of all kinds and fodder are plentiful. Beef and mutton maintain a good price, but wheat is low, from 4*l.* 8*d.* to 5*l.* the imperial bushel. The present cheapness of bread is an immense boon to the working miners, who are as well situated now as they have been for many years past.

The Stannaries Court is sitting at Truro this week, and I shall notice some of the more important cases in my next.

#### REPORT FROM NORTHUMBERLAND AND DURHAM.

(FROM OUR CORRESPONDENT.)

FEB. 17.—The accounts returned of the exports of coal from this district for the month of January are encouraging, as they show a considerable increase when compared with the corresponding month of last year. The London Coal Trade also shows similar results, while the supplies sent to London by rail still continue to diminish—a conclusive proof that the coal-owners of the North are able successfully to compete with those of the Midland and southern districts. Prices have also improved a little. Coal freights from the Tyne to the Thames are, however, higher—they are at present from 6*s.* 3*d.* to 6*s.* 9*d.* per ton.

At the Oxclose Colliery, near Washington, very little business has been done for some time. These works are at present carried on by those enterprising masters, Messrs. Elliott and Jonassohn. This colliery was, we recollect, commenced about 19 years ago, by a gentleman connected with the coal trade here. It had, however, been worked in the olden time, and some awful explosions of gas occurred under the old men. The gentleman referred to opened an old pit to the rise of the "whole coal" intended to be wrought, a step which was, by competent judges, considered to be impolitic at the time, as a good deal of whole coal existed, and the most feasible plan certainly was to sink new shafts to the dips of the coal, particularly as it was necessary to drift a considerable distance from the old shaft opened in order to arrive at this coal. The result of this system of operation was that a large sum of money was spent, and he was obliged, after a short period, to relinquish the enterprise. The present owners have since that period carried on the works, but with little better results, as they have not made satisfactory progress. An unfortunate holing made a few years ago to the north-east of the shafts into some old workings containing a large quantity of water, tended very much to this bad result. They, however, intend to open another shaft immediately, in a position more to the dip, where the chances of success will be very much greater. They will, we have little doubt, still make it a remunerative concern, as there are several good seams on the estate; and all that is wanting to enable them to be worked profitably is a favourable position. The lowest worked seam, and the most coveted on account of its fine quality, is the Hutton seam; the High Main, Maudlin and Low Main seams are, however, all good seams.

Extraordinary mining operations have been going on for some time underneath Lambton Castle, the seat of the Earl of Durham. This fine structure has been much injured by the colliery workings under it, and the noble owner has been engaged the last two years in opening out those mines, consisting of no less than seven coal seams, and in filling up the space in them with solid brick and stone-work; about 60 men and boys are engaged on this work, and a large sum of money has been expended.

The explorations at the Norwood Colliery, near Gateshead, have been stopped for some time; it is, however, stated that a company has been formed to work it, and that operations will shortly again be resumed. We have not yet been able to redeem our promise of giving some account of the modern operations here, but hope to be able to do so very shortly.

A movement is on foot at present to effect an amalgamation of the North-Eastern and Newcastle and Carlisle Railway Companies. The latter company has for some years been considered somewhat slow, but though a railway of the olden time, was generally considered very steady, and paying regular, if not high, dividends; they are, however, it appears getting into a worse position, and this, it would seem, is owing in a great measure to the short-sighted policy of the company in not fostering the coal carrying trade on their line; indeed, it would appear that their scale of charges for coal traffic are of a prohibitory character for some kinds of coal—for coals suitable for the purposes of Landsale, at Carlisle, and other places.



This trade ought to extend and increase, but at present the movement appears to be in the contrary direction, as two collieries on the line, from which considerable quantities of coal have been vended, are in a very unsatisfactory position, so much so that it is apprehended they may shortly be relinquished if no improvement takes place. The Blenkinsop Colliery is to be resigned into the hands of the owner of the royalty at the end of the current year; and the South Tyne Colliery, it is feared, will also be stopped. The coals sent by the Maryport and Carlisle Railway have, it appears, almost driven the above-mentioned collieries out of the market, as the latter company's charges for coal traffic are 150 per cent. less than the charges of the Newcastle and Carlisle Company. There must surely be something wrong here, the difference is tremendous. A considerable quantity of coal and coke is sent from Newcastle by the Carlisle and Newcastle Railway for shipment at Maryport, in addition to the Lanesale trade, and when the good quality of the Newcastle coal is taken into account, there can be no doubt that if the trade were at all fostered by this company a good business would be done, but their policy lately has tended to paralyse it.

The Wingate Grange Collieries are in the market for sale; they are situated a few miles to the south-east of Durham, and are on a large scale.

#### REPORT FROM MONMOUTHSHIRE AND SOUTH WALES.

[FROM OUR CORRESPONDENT IN SOUTH WALES.]

FEB. 17.—Since our last fair supply of orders has been received, both from the Continent and home buyers. There is no lack of business at the principal works, although in some instances additional commissions would be gladly received. Iron for railway purposes is most in demand, and large quantities of rails are constantly being sent away from the works. Pigs also sell pretty freely, and the makers obtain the prices now generally current without difficulty. The revival of trade is already having a very good effect, in the increased employment of labour, and the returning signs of prosperity which prevail. Improvements are still proceeding at various works, and at others extensions are going on. On the whole, our prospects are decidedly favourable, and there is reason to hope that the events of the year will be more satisfactory than is even anticipated.

The Coal Trade is not very brisk, either at Cardiff or Newport. The former port is full of vessels, but the wind is the chief cause of this. Freight for steam-coal is taken at much the same rates as we recently quoted, but a quiet tone prevails. At Newport the depression continues to be very great, and an extraordinary amount of apathy appears to exist with the dock directors on the subject. They hold a meeting this day (Thursday), but the result is not yet known. It is most important, too, that the coal owners should reduce their charges, and not suffer the present discrepancy as compared with Cardiff to continue. It is certain that buyers of both coal and iron are leaving Newport very fast, and the dock directors will soon have their property unused and neglected. Ships can be laden so much cheaper in Cardiff than but few shippers go to Newport, and yet no steps are taken to compete on fair terms with the rival port.

We have heard that an important coal and iron company in the Western Valleys, Monmouthshire, are about to send their produce through to Liverpool, via the Newport, Abergavenny, and Hereford Company. This must entail a heavy loss to Newport, as formerly everything was shipped in the docks there. The proprietors find it more economical to send to Liverpool by railway than from Newport by vessel, and the heavy dock dues are sufficient to account for this. It is quite time the Newport people were aroused to a sense of their danger, and to the manner in which their interests are being ruined.

Mr. Roden, who for some time managed the British Works, Abersychan, with credit to himself and profit to his principals, has gone to the Pontypridd Works, near Pontypool, where his tact and judgment will doubtless prove of great service.

A few evenings ago the colliers employed at the Norton Hill Coal Works were regaled with a dinner, in consequence of their having been out of employment several weeks through an accident to the machinery. They number 108, and are, of course, in very poor circumstances. Several speeches were made on the occasion.

The annual meeting of the Bristol and Forest of Dean Coal Company has passed off satisfactorily. The company were recently successful in winning the Yorkley seam of house coal, more than three feet in thickness, and thus will be realised more than half a million tons. Two other seams are also in view, of still greater extent.

Proprietors of collieries on the Vale of Neath and South Wales Railways will be benefited by a broad gauge branch railway connecting Llanelly Dock with the main line. Coal has already been shipped in the dock from the Loughor collieries, and the increased facilities will doubtless be largely made use of.

An inquest was opened at Rhymney, on Monday, on the body of William Jeomans, who was killed by a fall of coal in the Dyffryn Pit, on the previous Thursday evening, when about to leave his work. The jury viewed the body, and the coroner then adjourned the proceedings, to enable the Government Inspector to report on the state of the mine.

An enquiry has also been held at Aberdare concerning the death of a collier who died under similar circumstances.

**VENTILATION OF COAL MINES—"FURNACE REGULATOR."**—It is well known to those who have the management of extensive collieries, and requiring large and constant quantities of air for ventilation, that there is much difficulty in securing this. Where the ventilation is produced by the furnace, the furnace-men fire irregularly, and for their ease frequently smother the fire with coals, and not unfrequently fall asleep. A constant live and bright fire is wanted to ensure steady ventilation. In order to accomplish this desirable result, Mr. Burton, the underventurer of the Springwell Colliery, Staveley Works, Derbyshire, has arranged a simple apparatus, worked by a very small feeder of water, and not liable to derangement. The operations of this simple contrivance are as follows:—Every twelve minutes a bell is rung to signal the furnace-man, whose duty is then to fire, and thus with small firings to keep a steady and bright fire. In order to ascertain that the furnace-man has attended at every period of twelve minutes, the same apparatus moves round a circular plate, on the face of which are inserted pegs. The plate is fixed in a box, a slot is made in the box lid, and one peg only can be taken out at a time. Two minutes after the signal-bell rings the plate is moved round a little, and a peg is not again accessible until the next signal is given. If the furnace-man neglects to take out a peg, he is called upon to explain the reason. The pegs are dropped into a long groove, inaccessible to the man, but when the deputy examines this the precise period of neglect is detected. Another good feature of this "furnace detector," or "regulator," is the registry of maximum and minimum ventilation. During the clearing of the furnace fire, Mr. Burton has ascertained what should be the lowest amount of ventilation. A vane is fixed in the return air course, and is connected with a pointer (under lock), which indicates the lowest amount of ventilation when clearing, and thus detects any neglect in this respect. The apparatus has now been at work eighteen months without requiring any repairs, and with all the results anticipated. The ventilation has been increased 30 per cent., and has been kept constant. By it the daily attention of the deputy is secured at the furnace. It also points out which furnace-man neglects during the 24 hours. The furnace-men like the apparatus very much, as neglect is fixed upon the right man. Mr. Burton's apparatus has been introduced into the South Yorkshire Colliery, near Barnsley.

**FEEDING STEAM-BOILERS.**—Messrs. J. B. Pascoe and J. R. Thomas, of Chacewater, have just specified their patent (per Mr. Campin, the patent agent) for improvements in feeding steam-boilers. From their specification, we gather that this invention consists in having a reservoir to hold the feed-water placed at top of the boiler (though it may be placed at either end or side of the boiler), the same being connected with the boiler by pipes, screws or rivets, or otherwise, as required, the apparatus being arranged accordingly; for instance, if the reservoir is placed by the side of the boiler, the apparatus will be worked with an angle-bell in the pipe connecting the boiler and reservoir together. The boiler is made of any suitable metal or material. A pipe passes from the bottom of the reservoir through the boiler, and is angled so as to open upwards into the bottom of the boiler; and another pipe passes from the top of the boiler into the reservoir, being so angled and curved as to convey steam from the top of the boiler to the top of the reservoir; connected with this pipe is a safety-valve, with a lever in the boiler, and a flat float or swimmer attached thereto. There are three gauges, eight stop-cocks, and four valves; also two pipes conveying water from the reservoir and cistern, or divided part of boiler next to the same, into the steam condenser, such condenser being a fan with cylindrical axles and arms, through which the water is raised from the pipes and pours out in all directions, as in a shower-bath. There is also a small wheel or warra attached to the end of the shaft or axle of the condenser, or a larger wheel, for the purpose of driving it by a chain, endless belt, or otherwise. Adjoining the water cistern, which is next to the reservoir, as before stated, is another water cistern within a steam cistern, which is supplied with steam from the exhausting passages from the cy-

linder, from which steam cistern it is conveyed into the steam condenser connected with the exhausting passages from the cylinder. There is a pipe connecting the steam cistern to that part of the reservoir which forms the aforesaid water cistern next the boiler, and conveying the water from one to the other. A suitable throttle valve is provided for regulating the steam proceeding to the reservoir, actuated by the safety-valve, float, or swimmer, and its attachment is also other necessary mechanism. To see the invention, first supply the reservoir and boiler with water through the appointed stop-cock, and the water cistern through its proper stop-cock; then light the fire and raise the steam, work the engine and drive the condenser, when the steam from the exhausting passage will return from the steam condenser and be returned to water, and will go back to the reservoir through the valve provided for that purpose, and then into the boiler, as before described. As the water in the boiler sinks under the float or swimmer of the safety and throttle-valve, it will also sink and lift the rod at the other end of the lever, connected with the throttle-valve, and let the steam into the reservoir, which will force the water down the appointed pipe, before described, and into the boiler, until the float or swimmer is at its proper level, when the valves are closed. The distance of the rise and fall of the water in the boiler is regulated by the length of a loop upon the float or swimmer in the boiler. The reservoir may be in one, two, or three compartments, connected by valves, pipes, or otherwise, as required; also with the exhausting passages from the steam-engine and the condenser driven in either compartment, with a belt or endless chain, as required. In order to render the apparatus self-acting, the proper stop-cocks must be left open.—Claim: The improved method of conveying water or other liquid from a reservoir placed over the boiler (or in other proximate position) by a self-acting apparatus, or otherwise by the action of the steam or vapour generated in the boiler, without the aid of the force-pumps heretofore used, as hereinbefore set forth, and the apparatus for that purpose hereinbefore described. Without the drawing attached to the specification, it is difficult to properly understand the invention therefore we hope the inventors will enable us to present the drawing to our readers.

#### LEGITIMATE MINING AS AN INVESTMENT.

BY JOHN ROBERT FIFE.

Publicity is a feature which is prominently a characteristic of the age in which we live. The handmaid of healthy commercial action, its presence is held to be indicative of enlightened progress, whilst its absence may either denote exclusive privilege, which is a relic of the past, or the existence of abuses which might cease to be if dragged to the light of day. At no period, either in the records of the past or in the experience of living men, has the science of statistics been held in such high esteem. On a basis of numerals rest the whole fabric of our vast and complicated trading transactions; by them the practicability or otherwise of any scheme is capable of probable demonstration, and to them the great body of investors of this country (and their name is legion) look for guidance in their selection of securities. Therefore follows, as a necessary conclusion, that different classes of joint-stock securities will be held in high estimation, or be unpopular, in proportion to the quantity and quality of statistical information respecting them which may from time to time be brought to general notice through the recognised channels of publicity. It has repeatedly been asked, both privately and in the public prints, why British Mining is so frequently shunned by individuals in search of either speculative or dividend securities. It is capable of demonstration that our home mines pay a greater interest on money invested than any other description of available public securities whatever, and without more than an ordinary amount of risk, and that even in progressive concerns the chances of loss may be greatly modified by method and care in their selection. These things considered, in conjunction with many minor advantages peculiar to the prosecution of mining in Great Britain, only tend still further to increase the singularity of the position. There are, doubtless, many causes which contribute to the maintenance of this hostile feeling, but we unhesitatingly point to the want of publicity of statistical details as the most mischievous.

The columns of the *Mining Journal*, which is the recognised organ of British mines, are very scantily furnished with this description of matter, owing to the indisposition evinced by the managers of a great many mines to communicate the required information—first, as regards their periodical financial condition; and, secondly, as to the quantity and value of ores sold to the smelters. The particulars of the weekly sales of copper ore are at all times accessible to the general public, owing to the peculiar method of sale by ticketing which obtains in Cornwall, the great desideratum being reports of the sales of lead and tin, which are effected by private contract, and for which the managers of any public Journal must depend to a large extent on the liberal communications of the various pursers. In defence of the present system, it may be argued that such information is *bona fide* the property of the shareholders, in which individuals, other than adventurers, have no right to participate; and in some cases it might even be urged, in justification of secrecy, that the shareholders in any particular adventure being satisfied with the value of their property, and determined to retain the shares in their own hands, they neither courted nor required the publicity for which we are contending. Whereas, in the first instance, we believe that if the question was submitted to the decision of shareholders themselves, they, in a majority of cases, would order their proper officer to furnish all such information for legitimate publication, recognising the greatly increased value which such a course of proceeding would be calculated to give to their property; and, in the second, it might very reasonably be asserted that, so far as expediency is concerned, such a course of policy is radically bad, more especially so in progressive mines, where the amount of expenditure necessary to remunerate the shareholders for their outlay cannot be determined. We have known instances of mines being started with small and, in point of wealth, respectable proprietors, who prided themselves on the private character of their undertakings, and who in the course of time would have cheerfully submitted to the most extravagant sacrifices in order to obtain a title of the fruits of that very publicity which they had previously treated with such supercilious contempt. In the interest of statistical science, as well as in that of adventurers themselves, we claim publicity in matters of account—ore sales and prices—as necessary to secure the confidence and respect of the public at large for British mine shares as legitimate public investments.

FROM MR. JAMES CROFTS:—If those who do the writer the honour to peruse his letters will take the trouble to refer to the late notes, wherein the political aspects of the moment are discussed, it will be found that he has expressed a strong opinion on the war question, and against the event as a proximate one, chiefly on the ground of finance; and now it would appear that his opinions have been tolerably sound, since that identical question is manifestly obtruding itself, whether a preliminary to war or not. The attempt to raise an Austrian loan has proved a failure, not more than one-sixth of the amount desired having been actually subscribed by the British capitalists, and even that sum, it is understood, can never reach the Austrian Exchequer, if it be true that the negotiators of the present loan will intercept the amount *bona fide* subscribed in liquidation of bonds held by them on account of former Austrian loans; and thus, so to speak, Austria "takes nothing by her motion" to borrow six millions sterling. A more tangible matter is the rumour that France may come into the market for 20 millions sterling, to enable her to make face against any aggressive action on the part of Austria; but, although not considered as well authenticated, the rumour itself is necessarily significant, the resolution of the Government to be prepared for events. Our own belief, however, is unchanged—that the war cry is more a stock-jobbing than a military demonstration, the settlement of which must, and will, be preceded by monetary and diplomatic discussions, for which the public may wait, and put the event of actual war aside for the time. The fluctuations, both in the French and English funds, be it observed, are not violent, but merely indicate the course of jobbing operations; as, for instance, within the last seven days Consols have undergone the trifling fall of  $\frac{1}{4}$  per cent., whilst both foreign, colonial, and British shares of all kinds have generally improved in value, with as considerable a business doing in them as could reasonably be expected under present circumstances.

The general markets, and that of mines in particular, have not exhibited any strong symptoms of depression, although not quite so active this week as the preceding one for speculative shares; whilst for dividend mines there is neither a visible diminution of demand nor retrogression in prices, and those who have been purchasing these stocks fearlessly within the last three months are now in a position to realise excessive profits. If it be assumed, as is reported, that Providence Mines dividend for the quarter will be 5s. per share, and further, that the same rate of dividend may be continued, this share at 74s. cost would be paying 27 $\frac{1}{2}$  per cent. per annum income, and is, therefore, the maximum of a dividend mine. Wheel Margate, on Jan. 1 last, were 64s. per share, and are now quoted 82s. to 85s. This is another striking example of a tin mine (being only 144 shares) yielding great profits to adventurers. The last dividend, on Nov. 28, was 3s. 10s. per share; the next is due this month, and it is evident that both the above-mentioned shares may yet be bought for the dividends alone, if not for a rise in value also, and in this view are merely cited as brilliant examples of successful mining. Mary Ann remains steady, but Trelawny not quite so firm, the consequence of the sudden rise to 33s. 3d. from the payment of a bonus in addition to the last dividend; both these latter are shares to be bought as well as held. Alfred Consols, for some reason or other, have been quoted lower than their actual market value, not having needed at any time since the late advance below 74s., and scarcely any offering on the market. Par Consols continue steady at 16s. to 16 $\frac{1}{2}$ s.; they pay four-monthly, and paid on Nov. 2 last 10s. per share. Tincroft must enquire for, at 3 $\frac{1}{2}$ s. to 4s. per share. South Frances very scarce, but may be quoted 230s., or thereabouts, buyers. Wheels Butler and Basset, West and South Camden, West Basset, United Mines, Minera, Herodsford, Great South Tolgus, Grambler and St. Aubyn, Bedford United, and several others less dealt in, do not present the smallest amount of feature, and have only to be offered to find ready buyers.

In progressive mines the most noticeable item is the continued success of Rosewarne United, which has been met with in the 70 fn. level cross-cut; the shares are sought for at 70s. to 75s. On the 1st of January these shares were only worth 30s., and the mine being in 512 shares, upwards of 20,000l. has been added to its value in about six weeks. The Kelly Bray meeting on the 17 was of a most satisfactory character, and the accounts showing the western mine to have made a profit during the last quarter of about 500 to 600l., whilst as the reserves of ore are estimated at about 6000l., it may be considered a perfectly safe investment, and at present low in value in comparison with its merits. A rumour, said at the time to be without good foundation, was circulated ten days since that Calstock Consols Mine was full of water, which now appears to have been either untruthful or very much exaggerated, the shares being in good demand at 4 $\frac{1}{2}$ s. to 4 $\frac{3}{4}$ s. This mine some time since (Dec. 1857) received a check to its prosperity and standing in consequence of declaring a dividend of 2s. 6d. per share, from which injudicious measure it can be yet scarcely said to have recovered; but as it has now a large production of ore, and is in a sound state of finance, a repetition of the error not being at all probable, it deserves to be placed amongst the safe con-

cerns of the day. Wheel Addams held its meeting on the 18th inst., and made the anticipated call of 2s. 6d. per share, simultaneously with which event the water, which had for some time filled the lower levels of the mine, suddenly disappeared, and the shares in consequence, and despite the call, have remained firm at about the price they previously ruled, and now stand, call paid, about 15s. per share, with more buyers than sellers. It may be now observed that the late reports on the mine having been issued when the said lower levels were not available to the visitor, but being now in an "inspectable" state, fair reports on its actual condition and value as a mine to be worked for dividends will be looked for, and they may save the public from further violent losses, since it gives rise to the suspicion of mismanagement somewhere, when shares fall without sufficient cause in a few weeks from 25s. to 10s. per share, they having been purchased at the higher price, too, in anticipation of a considerable advance. From Crowther Lead (in Llanidloes, in 2000 shares, 30s. paid), they write "the lode is looking well, and we shall have a splendid mine in a short time." The good prospects of this mine have been lately alluded to by the writer, and being in few shares they deserve attention, if on that account only.

Our attention has been drawn to Wheel Grylle, in consequence of a very considerable enquiry for the shares during the past week, the price having ranged from 8 $\frac{1}{2}$ s. to 9 $\frac{1}{2}$ s. It is a tin mine, in 1024 shares, in proximity to Wheel Charlotte, and raised and completed last month 800l. worth of tin, leaving a profit, as is reported, of 75 per cent., whilst next month a dividend of 10s. per share is expected. The mine, consequently, deserves publicity. Wheel Edward, Sordridge Consols, Wheel Arthur, and Great Wheel Alfred, remain flat, and attract little notice. Lady Bertha stationary at 18s. to 19s. Dale, 20s. paid, enquired for at 14s. to 15s., and also the 15s. shares at a proportionate price. Round Hill continues lower in price than the merits of the mine apparently warrant, but it must be observed that the speculative class of shares, taken in the aggregate, are dull, and without attraction for the moment, and, in consequence, most of them are perfectly safe to buy, and will be eagerly sought for when the war question occupies less of the attention of the speculative public.

In stocks exclusively dealt in on the Stock Exchange, that single remnant of the famous gold schemes of the years 1853-4, Port Phillip, as well as the North Rhine, continue, and are likely to continue, to command high prices; whilst most attention is directed at present to Canadian securities, such as the Grand Trunk and Great Western Railways, and may certainly be considered, at their present depressed rates, most eligible investments, and likely to yield, in the course of this spring, even handsome profits. A résumé of the statistics of the existing Australian mining adventures will be attempted by the writer in his next letter.

Lengthy reports from South Lady Bertha and Tavy Consols, just received, were presented to the writer for perusal, and upon which he would have been happy to make comments, but the peculiar caligraphy of the agent marred his best efforts to accomplish the task, although it did not prevent his deciphering some words of a laudatory character as regarded the progress of the lodes in both mines, upon which the shareholders may be congratulated; but as reports are intended to be read, they should also be made easy to read; and if the agent (from no fault of his own) has not the gift of perspicuity in penmanship, or the time necessary to improve it, an essential expedient is to employ amanuenses—a suggestion made to the worthy captain with the highest respect for his mining abilities, and other appreciable qualities.

FROM MR. LELAND:—Our inspection of the western mines during the week has been very satisfactory. At St. Ives Consols, on Tuesday, a dividend of 6s. per share was declared, and an increased balance of 177l. 17s. 4d. carried to next account. 91 tons 10 cwt. 3 qrs. 20 lbs. of black tin were sold during the quarter, at an average of 69l. 6s. per ton—net profit, 2297l. 17s. 4d.; this is the largest dividend the mine has yet paid. Total amount of dividends paid up to the present time 926l. per share, and the next will be still greater. Botallack paid 2l. 10s. and Levant 4d. the same day. On Wednesday Wheel Charlotte paid 10s. The mines are opening very rich; in the 40 they have passed through upwards of 70 fms. of ore ground, worth on an average 20l. per fm.; standing to a considerable height in the back, in the 50, they have passed through about 90 fms. of ore ground, worth on an average 20l. per fm.; standing whole to the 40, and in the 60, they have cut the lode 22 fms. sooner than in the level above—viz., the 40, and in the 60, was met with 25 fms. west of the engine-shaft; and in the 70, a few fathoms further driving—say, one or two more, it is expected this lode will prove the most productive in West Cornwall. At the meeting the shares were divided into 5120, and Capt. Kendall's appointment of joint manager with Captain Gundry confirmed. This is, unquestionably, the cheapest mine in this district, or, in fact, any other that we know of. Providence, Marsden, Trelawny, Carnarvon, North Levant, and Pendine are looking well. Rosewarne United is very rich, and shares are rapidly advancing. Wheel Unity is equally as good a mine as Rosewarne United. Rosewarne Consols is laying open large quantities of tin ore, and South Cunderdow is a first-class speculation; the directors of the Western Mining Company to the lode lately discovered to the boundary of West Basset. The late call of 1534l. 4s. 2d. is calculated to be sufficient to erect the necessary steam-power, and lay open the lode at the 40, at which point the most sanguine expectations are entertained. Old Tolgus United is highly spoken of, and success appears to be almost certain. We did not see East Basset, but it was reported that the mine was not looking quite so well; notwithstanding, we believe the mine to be a good one, and, after a few dividends paid, there is no doubt the shares will rule high. Alfred Consols is very rich, and will Ding Dong has improved in Green-pasture shaft. Kitty Leland is a good mine, but the shares are very high. West Seaton is a first-class mine. Tin continues to advance. We shall not be surprised to see St. Ives Consols very much higher than they are at present. When these shares were 25s., a few months ago, we had the greatest difficulty in persuading capitalists to purchase; now that they are 90l. to 110l. everybody is running after them. The same with Wheel Charlotte. Last December we repeatedly advised the purchase of these shares at 7l.; now the same share is worth 22l., and will assuredly go to 50l. Trelawny at 21l., now worth 18l.; Ding Dong at 5l., worth 15l.; to 20l.—all within three months. As much for mining in West Cornwall. Next week we will speak of a few mines further up.

#### WHAT IS SAID AND DONE AT "THE CORNER."

However sore some people may feel on finding shares are offered at the Corner at one-half less than they have been receiving from those who probably are unacquainted with the true market value, nevertheless the truth has been written, and is again reiterated, that Caradon and Slade shares may be had at 30s. per share, and that is an extraordinary premium for a new adventure, whose merits are yet so little known. The ordinary course of the week, around the corner of the Western Mining Company to a sense of duty due to the shareholders, we know not, but we are assured they have done nothing more than what they ought to have performed long since—publishing the despatches as soon as received, thereby affording every proprietor an opportunity of knowing the position of the property. It is stated that there are only 40,000 shares out of 100,000 upon which the calls are payable, whilst 30,000 remain free, and about 30,000 forfeited for the non-payment of calls; but whether the latter are to merge into the capital stock of the company, and thereby reduce the original number, is a subject frequently discussed, and considered to be against any important rise in the share of this improving property. It is feared that some gloomy rumours about the mine (the forfeited shares thrown on the market to raise a capital which, from present prospects, may never be required. This is a matter frequently canvassed at the Corner. South Lady Bertha meeting was held on Tuesday. What a funny history is related of 1000 shares in connection with this mine. When South Lady Bertha was originated the projectors divided the mine into 6000 shares, reserving 1000 for the purpose of raising the preliminary working capital. The shares were shortly afterwards appropriated to a favoured few, but on a resistance being made at a subsequent meeting the shares were reluctantly given up, but not sold in accordance with the original intention. At a later meeting it was agreed that they should merge into the stock of the company, reducing the same to 5000 instead of 6000 shares. This equitable arrangement has been cancelled, and the said shares divided *pro rata* among the present shareholders upon payment of 2s. per share, the amount of call now made; consequently, those who have been working the mine, and paying calls with 5000 shares, and since sold out, are now deprived of the benefit which belonged to them. But the questions discussed at the Corner are—Is this conducting a mine on the Cost-book Principle? and is not the constitution of the company changed by these measures? Wheel Addams meeting was held on Tuesday, and a call of 2s. 6d. per share made, to cover the liabilities and future working, which was deemed sufficient, with the proceeds of the blende and lead ores now ready for sale. An article which appeared in a publication of the same day became the topic of general conversation. The writer of the article was considered to have used Mr. Murchison's black brush more lavishly than prudently, especially so as it was perfectly gratuitous and uncalculated for. It contained a report from an agent, who, it is stated, sent the same in confidence to another party. Be this as it may, there is little doubt but the agent referred to is better acquainted with the mine, a question for the decision of another tribunal, we will defer further remarks, merely observing that a mine which has returned upwards of 1500%, and having for sale 14 tons of lead, for which 11l. 6d. per ton has been bid, with 3 tons dressed, and between 80 and 90 tons of blende, cannot be *dear* at a gift, is the opinion of those at the Corner. It is stated that one broker gave to a large shareholder in Wheel Addams 10l. for the put of 400 shares at 11s. for March 5, and the consequence is, however unprincipled in a moral point, he has made every effort to depreciate the shares, to enable him to purchase at the lowest possible price. If men will gamble, the law and equity decides that they must abide by the result, and so says the Corner.

SATURDAY, FEB. 12.—There has been a very active enquiry for East Wheel Russell, in consequence of advice that the lode had been cut in the 88, which has been looked forward to with much interest, buyers freely offering 8 $\frac{1}{2}$ s. to 9 $\frac{1}{2}$ s.; Lady Bertha shares were done at 2 $\frac{1}{2}$ s., but the rumour was that the mine was returning upwards of 1500%.

TAMAR CONSOLS, 31s. to 32s.; TAVY CONSOLS, 11s. 6d., 12s. 6d., and 15s.; MARY ANN, 47s. to 48s.; TRELAWNY, 31s. to 32s.; SOUTH FRANCES, 217 $\frac{1}{2}$ s. to 220s.; TEBLY, 23s. In foreign shares, Worthings have been in special request, from 7s. to 7s. 9d. Port Phillip shares have been purchased at 11s. to 11s. 6d.

MONDAY.—East Wheel Russell appears to be the favourite of the day; shares have advanced to 8 $\frac{1}{2}$ s. 9s. Some brokers appeared desirous of the call of these shares at 9l. for the end of the month. South Frances shares were done at 220l. to 225l.; Trelawny, at 31 $\frac{1}{2}$ s.; Cook's Kitchen, 5s. to 5 $\frac{1}{2}$ s.; Carn Rann, 6s. to 6 $\frac{1}{2}$ s.; East Trefusis, 5 $\frac{1}{2}$ s.; Lady Bertha, 18s. to 19s.; South Camden, 44s. to 45s.; United, 15s. to 16s.; Tamar Consols, 30s.; Sordridge, 14s.; Vale of Towy, 11s. 6d.; Wheel Basset, 220 to 225; Lutet, 2 $\frac{1}{2}$ s. to 3s.; Tavy Consols, 11s.; and we have heard as high as 19s. South Lady Bertha, 2s. 6d.; Telly, 23s. to 25s.; Kitty (Leland), 11s.; Alfred Consols, 6 $\frac{1}{2}$ s. to 6 $\frac{3}{4}$ s.; North Frances, 6s.; Mary Ann, 48s.; Drake Walls, 24s. to 25s.; Maricret, 62s.; Pendine Consols have been done at 4s.; Port Phillip, 10s. to 11s.; Round Hill, 10s. to 11s.; and we have heard as high as 11s. 6d. for the current three months, and to discharge existing liabilities.

TUESDAY.—A fair amount of business is stated to have taken place, but as we purpose only to record what has actually come to our notice, we shall quote South Frances at 222 $\frac{1}{2}$ s.; Carn Rann, 6s.; East Russell, 8 $\frac{1}{2}$ s. to 9 $\frac{1}{2}$ s.; Hingston Down, 3 $\frac{1}{2}$ s.; East Trefusis, 5 $\frac{1}{2}$ s.; Lady Bertha, 18s. to 19s.; South Camden, 44s. to 45s.; United, 15s. to 16s.; Tamar Consols, 30s.; Sordridge, 14s.; Vale of Towy, 11s. 6d.; Wheel Basset, 220 to 225; Lutet, 2 $\frac{1}{2}$ s. to 3s.; Tavy Consols, 11s.; and we have heard as high as 19s. South Lady Bertha, 2s. 6d.; Telly, 23s. to 25s.; Kitty (Leland), 11s.; Alfred Consols, 6 $\frac{1}{2}$ s. to 6 $\frac{3}{4}$ s.; North Frances, 6s.; Mary Ann, 48s.; Drake Walls, 24s. to 25s.; Maricret, 62s.; Pendine Consols have been done at 4s.; Port Phillip, 10s. to 11s.; Round Hill, 10s. to 11s.; and we have heard as high as 11s. 6d. for the current three months, and to discharge existing liabilities.

WEDNESDAY.—The transactions at the Corner have not been very numerous; East Russell is heavier, quoted 7 $\frac{1}{2}$ s. to 8s.; Rosewarne United does not im-



prove, sales at 62½; Hingston Down were done at 3½; Lady Bertha, 17s. 6d. to 18s. 6d.; Tollyd were done at 22s. 6d. to 24s.; East Basset, 19s. to 20s.; Providence, 70 to 72; South Tois, 72; St. Day United, 15s. to 16s.; Lindcot, 2½ to 2½; Gamber and St. Aubyn, 90; Mary Ann, 46 to 48; Port Phillip, 10s. 6d.; Worthing, 7s. 6d.

**THURSDAY.**—The market has been rather dormant, if we may except East Russell, for which there was an active enquiry in consequence of a reported improvement in the back of the 66 as well as the 88, which has been partially cut into. The shares found buyers at 9, 9½, to 9½, and left with a desire to purchase at the latter price. There was a report that an improvement had taken place in Tinselt, but as no one appeared to know the point, and there being no advice at the office, it was attributed to a rumour of some interested party. Hingston Down were bought at 3½ and 3½; Tollyd at 25s.; Harriet at 11s. 6d. to 12s. 6d.; Lady Bertha at 15s. 6d.; Tavy Conals at 16s. to 18s.; Margaret, 6½; Providence, 70; Tamar Conals, 29s.; West Caradon, 64 to 66.

**FRIDAY.**—East Wheel Russell shares have been the chief enquiry, and in demand at 10½, being a rise of 4000, upon an improvement reported in the back of the 66, a tribute pitch set at 13s. 4d. in 11, and the lode is stated to be worth 400 per fm.; this, it is hoped, will prove a "start" to the takers, and good ground left for the adventurers. The lode in the 88 is rather disordered where opened, but a great improvement is fully expected. Lady Bertha, 18s. 6d. to 19s. 6d.; Wheat Adams, 15s. to 16s.; Rosewater United were again in request at 68; East Basset have been sought for at former prices, but we are not advised of any business; Drake Walls are offered at 30s., being less than last week's dealings; Holmbush are enquired for at 15s., but there are no buyers at 17s. We have made every possible enquiry to ascertain the business of the day, and cannot learn more than we have noticed. East Russell left off sellers at 101.

## FOREIGN MINES.

**COPIAPO MINING COMPANY.**—Checo Mine, Dec. 31: Estimated produce:

Quantity.	Levy.	Price.	Value.
Middle south lode ... 2d class sulphurates ... Qtls. 600	11	9	675-00
Middle south lode ... 2d class carbonates ... 1900	11	5	1187-50

Total ..... Qtls. 2500 ..... \$1862-50  
The 20, west of Harman's shaft, is as last reported, paying cost. In the 30 cross-cut, south and east of ditto, having cut a lode of yellow sulphur, 12 in. wide, of 20 per cent. I have commenced stoping upwards, and hope in my next report to report a profitable lode. The 45 stops, in back of west, are becoming poor, but in a driving west, advised in last report, I have still a small branch, 12 in. wide, in one of 27 per cent. blue sulphur, and which I hope will improve. The 50 east still carries stones of ore throughout, but does not pay cost. In the 60 east I have communicated the chiton from the 50 to the bottom of this shaft; and in sinking north I have cut both the north and middle south lodes, each about one yard in width, the former being of a soft nature, with specks of yellow sulphur, and the south lode, 18 in. wide, in blue sulphur of 18 per cent.; this latter lode we cut in 55 fms. depth in sinking the shaft, with inclination north, but upon its approximating the north lode at present depth it altered its inclination to southerly with north lode, from which it is now distant about one yard. —Western Set: The 10 I have now communicated with the old workings, in order to extract the poorer class remaining in the old stops, and to ascertain the position of former branches, of which I have taken careful measurement, so as to seek for the correspondence in sulphurets in lower levels; I have now opened a road to the 30, passing south of them, and I find that said rich branches cut out within seven yards of the 30 nearly horizontally, and west of cross-course, for 100 yards, having met with a hard stratum inclining slightly westerly; I will make further observations as I progress in the work below. In the 30 cross-cut north, and close to cross-course, I can get this cost, commencing at the 40 west, and discontinuing under one of the rich branches of carbonates. The 40 west is unprofitable; in the cross-cut north I have nothing favourable to note. —Remarks: As in former advices, our operations are much influenced by the present low prices paid for copper ores, being chiefly on lodes yielding sulphurates. In the 60, you will have noticed that in no part of the former works have been found at this depth, and which I expected at Price's shaft, as the north and south lodes are wider apart at the surface than in the western set and easterly, and would, therefore, intersect at greater depth, such being apparently the case, and give hopes of a great improvement. —O'Brian's Shaft: The 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100, 105, 110, 115, 120, 125, 130, 135, 140, 145, 150, 155, 160, 165, 170, 175, 180, 185, 190, 195, 200, 205, 210, 215, 220, 225, 230, 235, 240, 245, 250, 255, 260, 265, 270, 275, 280, 285, 290, 295, 300, 305, 310, 315, 320, 325, 330, 335, 340, 345, 350, 355, 360, 365, 370, 375, 380, 385, 390, 395, 400, 405, 410, 415, 420, 425, 430, 435, 440, 445, 450, 455, 460, 465, 470, 475, 480, 485, 490, 495, 500, 505, 510, 515, 520, 525, 530, 535, 540, 545, 550, 555, 560, 565, 570, 575, 580, 585, 590, 595, 600, 605, 610, 615, 620, 625, 630, 635, 640, 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**DEBENTURES OF FIFTY POUNDS EACH, BEARING INTEREST AT FIVE PER CENT.—THE DIRECTORS OF THE BRISTOL AND FOREST OF DEAN COAL COMPANY (LIMITED),** under powers of the Act of Parliament, are NOW RECEIVING APPLICATIONS FOR DEBENTURES OF FIFTY POUNDS EACH, for three, five, or seven years. Interest at 5 per cent. per annum, payable half-yearly, with option to the lenders to convert into shares within a year. About £11,000 have been expended. The property consists of three extensive seams of coal, with engines, machinery, and buildings. One of the seams has been won, and the coal is expected to be in the market in about two months. The colliery is near the port and railway station at Lydney. Applications may be made to Mr. G. S. BRYANT, sharebroker, 2, Stephen-street; or to Mr. B. D. COLLENS, managing director, at the offices of the company, 6, Bridge Parade, Bristol, February 4, 1859.

**PROSPECTUS.**  
**WEST OF ENGLAND IRON COMPANY (LIMITED).**  
By which each shareholder's liability is limited to the amount of his shares. Capital £10,000. In 200 shares of £50 each.

**PROVISIONAL DIRECTORS.**  
JAMES HUMBY, Esq., Ponkey Ironworks, Denbigh.  
JAMES SAINSBURY, Esq., Easterton, Wilts.  
JAMES CADMAN, Esq., late manager of and partner in the Maesteg Ironworks, near Bridgend, Glamorganshire.

(With power to add to their number.)  
Solicitor—H. H. Hulbert, Esq., Devizes, Wilts.  
Secretary—Mr. John Combes, Devizes, Wilts.  
OFFICES.—DEVIZES, WILTS.

The objects of the company are for making and selling pig-iron, and converting the same into malleable iron.  
A blast furnace, with hot air ovens and necessary machinery and fittings, have been bought, and a lease of the premises situate at Bristol obtained; also, some rolling mill driven by water-power, at Wick, secured for a long term of years, and the stock in trade and tenant's fixtures, with a large quantity of iron ore, coke, coal, and limestone purchased. From carefully prepared calculations, an estimated net annual profit of upwards of 30 per cent. on the capital is confidently anticipated.

One hundred and twenty shares have been already taken by seven persons only, and as the object of the present subscribers is to limit the number of shareholders, and being in want of a good practical manager, any party, subject to the approval of the board, coming forward by himself, and a few others, and taking the remaining 80 shares would be allowed a handsome salary for his services as general superintendent.  
Full particulars may be known of either of the provisional directors, or of the secretary. No application for shares will be received after the 25th inst.  
Devizes, February 16, 1859.

**ROLAND MINING COMPANY, DERBYSHIRE.**  
1000 shares, at £1 each.

Deposit, 2s. 6d. per share. Paid on application.  
Applications for shares to be made to Mr. E. B. PALMER, Stock Exchange, Chesterfield, from whom all further information may be obtained.

**THE CUMBERLAND BLACKLEAD MINE COMPANY (LIMITED).**

Capital £200,000, in 4000 shares of £5 each. Deposit, 10s. per share.  
Incorporated by Act of Parliament, 19 and 20 Vict., cap. 47, sects. 4 and 5, Jan. 8, 1859.

**DIRECTORS.**  
RICHARD EALES, Esq., Exeter, Devon.  
D. J. JOHNSON, Esq., Northampton-park, Highbury.  
WILLIAM WATKINS, Esq., 14, Soley-terrace.  
C. WORTHINGTON, Esq., Cliftonville, Brighton.

(With power to add to their number.)  
BANKERS.—The Bank of London.

Solicitor—William Black Barnes, Esq., 15, Cannon-street West.  
RESIDENT AGENT—Capt. John Dixon, Borrowdale.

LONDON AGENT—Mr. George Chambers, Change-alley, Cornhill.  
SECRETARY—Mr. T. Fuller.

OFFICES.—51, THREADEMEELE STREET, LONDON.

This company has been formed and registered for working the celebrated wad, or blacklead, and other minerals contained in the property. The graphite, or blacklead, technically called wad, is esteemed and known as the purest and most valuable ever discovered, and hence, during the period of its limited operations, the proprietors have been accustomed to open the mine for a few weeks in a year, during which period they realised the enormous sum of £238,625 9s., upon an outlay of £39,682 10s. 2d., leaving a profit of £207,942 18s. 10d.

The proprietors having amassed such a fortune from the returns of blacklead, and being advanced in years, the mine was closed for the last seven years. Since the decease of the principal proprietor, it has been granted to the present promoters upon favourable terms. A vein of copper and rich silver-lead has been discovered in the company's grant, which will add considerably to the value of the mine.

The mine is worked by adit levels driven into the mountain, no machinery being required. The lead, or wad, being found in a pure state, requires only to be cleaned from the outer surface, and has been sold at £500 to £4500 per ton; the second class being used in the formation of crucibles for chemical purposes, machinery, &c., and as an excipient of this particular mine (Borrowdale), is only below its summit.—*Dr. Ure.*  
Borrowdale, or Chappelry, is in the parish of Crosthwaite, Cumberland, seven miles south-west of Keswick. This Chappelry is celebrated for the production of the finest plumbago, or blacklead, in the world. This mineral principally is called wad, embedded in grey felspar porphyry.—*Gazetteer of the World.*

**REPORTS.**  
*Greta Bridge Pencil Works, Keswick, Jan. 29, 1859.*—I went up to the mine, as promised, on Thursday last, and gave Capt. Dixon to understand what was required in his report for your use. You have the substance, and perhaps a little rearrangement would be of service, without altering the facts. On reference to the plans you will be the better able to do this. He had written explaining why the mine closed. The facts were these:—Mr. Banks, having better half of the mine as owner, and holding about one-half the working share, did not care to advance any more money after getting Robson's level to its present position, as there was a probability then, as now, of their coming on a valuable sop of wad daily; so he doubtless saw it in his interest to discontinue after driving Robson's level to a certain point, their lease expiring some two or three years from the time it ceased to be worked. If any further information will be of service to you I shall be happy to render all in my power.

*Wad Mines, Jan. 28, 1859.*—Being convinced, as I am, of the great probability of there being many sops or bodies of wad yet undiscovered, I therefore submit the following propositions to your notice; and, first, I shall begin with Robson's stage, as being the lowest or nearest to the level of the bottom of the valley. Robson's level, being 220 fms. driven in the Rake vein from the entrance to the mine, is 1000 yds. from the entrance. The Rake vein is a cross vein, which intersects the Rake vein at right angles, and will also intersect Hampson's vein on the right, at about 10 or 12 fms. from Robson's level, where, in all probability, there may be a sop of wad. Hampson's passes through Grand and Dixon's pipes. At about 125 fms. from entrance there is a vein passing obliquely to the left of Rake vein, which, by driving in about 5 fms. will intersect a wady vein, which appears in Robson's level at about 175 fms. At 200 fms. we come to Jack's cross-cut, where we cut through a very hard rock of greywacke, to the range of Grand Pipe; but, in my opinion, it was not sufficiently explored to determine whether there may be a chance of meeting with a sop of wad or not. I now come to the consideration of Hastings' Pipe, of which I have always expressed a favourable opinion of there being a sop or sops of wad in the course of this Pipe, which was discovered on Gilbert's stage, where were strong indications of wad, which increased in appearance as we sunk down, and which is now down about 17 fms., where we cut a large feeder of water, which impeded the progress of working so much that it was given up in despair; but when Jack's cross-cut was cut on Robson's level we cut the same feeder of water, which drained in a great measure the upper part of Hastings' Pipe, and which can now be prosecuted with advantage, both by sinking and rising, and I hope will lead to the discovery of a valuable sop of wad, besides ventilating the lower part of the mine. I also recommend that a further prosecution of the Rake vein should be proceeded with, until it intersects all the cross veins that are known, and where it is that all our hopes lie for the discovery of wad, and such is what constitutes a pipe. Robson's level is about 220 fms. The next consideration is Gilbert's stage, which is 115 fms. in length, and elevated above Robson's stage 45 fms. perpendicular. This stage was commenced in 1795, and finished in 1800, with the intention of making a communication with the Grand Pipe, which is 47 fms. perpendicular from the surface, where wad was first discovered, and for draining and ventilating, and the further prosecution of trials, which was attended with great success. I also recommend that a further trial should be made to the course of Winkle's and Williams' pipes from Dixon's stage; these pipes produced a little more than 200 cwts., and Williams' pipes from a further trial. The trial now going on on Old Men's stage I recommended in my report of Nov. 3 last, and that also on Gill's stage at the same time, which I consider of the greatest importance. There is a vein bearing about north and south at about the distance of 200 yards from Gill's stage, in which no trial has ever been made, and where some small pieces of wad have been found lying upon the surface of the vein, which induces me to think there is a sop of wad which may turn up to be of the greatest importance; the vein is most promising, and Mr. Banks had declined to work with the existing company, the lease being near its termination, and no renewal of the lease being granted; hence it fell into the proprietors' hands. The subsequent decease of one of the proprietors has increased the delay of again opening it.

**JOHN DIXON.**  
Applications for shares to be made to the directors in the following form:—  
To the Directors of Allotment of the 2400 shares for issue.

GENTLEMEN,—I request you will allot me of the £5 shares in this company, and herewith enclose you £ being the amount of 10s. per share deposit. I also undertake to pay the amount of calls that may be made thereon, in accordance with the provisions of the company's Act of Incorporation.

Signature .....  
Date ..... Address .....

**CONDITIONS.**  
That the deposit of 10s. per share shall be paid upon the number of shares applied for, to the credit of the directors, who bind themselves to allot the shares to the applicant; but should the number of such excess the number to be disposed of—viz., 2400 shares, such deposits will be returned forthwith.

Any person will be at liberty to pay up in full the amount of £5 per share, and be allowed 6 per cent. discount thereon.

Prospectuses and every information afforded at the office of the company, 51, Threadenneedle-street, London.

By order of the Board, THOMAS FULLER, Sec.

\* The distance from the forefield of German's vein in Jack's cross-cut to intersect Hastings' Pipe will be about 8 fms.

**TO IRONMASTERS.—A SITUATION WANTED AS MILL and FORGE MANAGER,** by a person who had many years' practical experience in the iron trade, and is thoroughly conversant with the manufacture of plates, sheets, hoops, and bar iron. Can produce satisfactory testimonials as to ability, character, &c.—Address, "P. G.," Mining Journal office, 26, Fleet-street, London, E.C.

**TO IRONMASTERS AND OTHERS.—A GENTLEMAN** who has been connected for many years with large IRONWORKS, and who combines a THOROUGH PRACTICAL KNOWLEDGE OF THE WORKING OF BLAST FURNACES, with the usual routine of the counting-house, is OPEN to an ENGAGEMENT. To parties conversant with new works this would be a desirable introduction. Address, "P. Q.," Mining Journal office, 26, Fleet-street, London, E.C.

**TO IRONMASTERS AND STEEL MANUFACTURERS.**—A GENTLEMAN of industrious habits, and well acquainted with the above branches of business, is OPEN to an ENGAGEMENT to give his whole time as AGENT, on commission or otherwise.—Apply, "R. W.," Mining Journal office, 26, Fleet-street, London, E.C.

**TO IRONMASTERS, ALKALI MANUFACTURERS, &c.**—WANTED, A SITUATION AS CHEMIST, by a young man thoroughly qualified, and can give a good reference. Salary less an object than a permanent situation. Address, "J. C. W.," Sydenham College, Birmingham.

**TO IRONMASTERS.—WANTED, AN AGENCY FOR THE SALE** of MERCHANTS' and STEEL IRON, for Sheffield and its neighbourhood. The advertiser has for the last fifteen years been connected with ironworks, and accustomed to call upon all large consumers of both the above irons, consequently known to them, and, if well supported in quality and price, can command a fair amount of orders. Address, "O. P. S.," Post-office, Sheffield.

**TO IRON AND COAL MASTERS.—A PERSON** who has had CONSIDERABLE EXPERIENCE IN THE MANAGEMENT OF IRONWORKS, and in the OPENING and WORKING OF COAL and IRON MINES, is DESIROUS OF OBTAINING A SITUATION. Need not object to go abroad. Unexceptional references will be given.—Address, "M. R. J.," Mining Journal office, 26, Fleet-street, London, E.C.

**TO THE IRON TRADE.—The present GENERAL MANAGER** of a company, under the Joint-Stock Act, is DESIROUS OF CHANGING HIS POSITION. He has the experience of 19 years in the iron trade to offer, has a practical knowledge of iron making in all its branches, and is a competent book-keeper, correspondent, &c. No objection to go abroad.—Address, "Alpha," Mining Journal office, 26, Fleet-street, London, E.C.

**TO CAPITALISTS.—A FEW GENTLEMEN** having COMBINED TO CARRY OUT A SMELTING ENTERPRISE IN SPAIN, and deeming it an excellent opportunity for obtaining a large return upon the capital embarked, are DESIROUS OF FINDING A FEW MORE TO JOIN THEM. In order that the advantages of the Limited Liability Act may be availed of. It is proposed to register a company with 10 shares of £500 each, and, as every care has been taken to secure the best system of management, the most satisfactory results are anticipated. This enterprise offers no inducement whatever to speculators relying upon share transactions, but affords a desirable opportunity for bona fide capitalists to invest in a highly lucrative business.—Apply to "O. N. M.," Mining Journal office, 26, Fleet-street, London, E.C.

**TO MERCHANTS, MANUFACTURERS, AND OTHERS.**—AGENCY WANTED FOR CORNWALL, by a gentleman in whom implicit confidence can be placed, having extensive connections in the county, and being superintendence of mines and china-clay works, and is acquainted with assaying and the management of business generally. The most satisfactory references and security. Address, "Fides," Mining Journal office, 26, Fleet-street, London, E.C.

**TO MANUFACTURING CHEMISTS.—MANAGER** WANTED.—A person thoroughly acquainted with the distillation of earth and other mineral oils, and with the manufacture of the various products derivable from bituminous substances, is required. Salary liberal.—Apply by letter only, stating qualifications, addressed "A. C.," No. 34, Great Winchester-street, E.C.

**TO ALKALI MAKERS.—WANTED, A THOROUGHLY PRACTICAL** FOREMAN, for the MAKING OF SODA ASH. He will be required to superintend the construction of the necessary furnaces, &c., and be competent to undertake the direction of the works in the absence of the principal.—Apply by letter only, to Messrs. ALLEN and Co., wholesale and export druggists, Charterhouse-square, London.

**TO ALKALI AND SULPHURIC ACID MANUFACTURERS.**—The ADVERTISER has had the sole management of a large manufactory for several years, and is competent to PLAN, ERECT, or MANAGE a similar concern of any magnitude, and on the most improved principles, is OPEN TO TREAT with manufacturers having works at present in operation, or capitalists about to erect the same, in any part of England or abroad. Highly respectable reference as to ability and character will be given.—Communications may be addressed to "X. Y.," care of Mr. Jas. Newton Warburton, 30, Cumberland-row, Newcastle-on-Tyne.

**TO CEMENT MANUFACTURERS.—WANTED TO RENT** or PURCHASE, CEMENT WORKS of known good character.—Particulars to be addressed to Messrs. TAYLOR and WOODWARD, solicitors, 38, Great James-street, Bedford-row, London.

**WHOLESALE MANUFACTURE OF ALUMINIUM.**—A GENTLEMAN who has EXTENSIVE WORKS IN FULL OPERATION for the MANUFACTURE OF ALUMINIUM, and who has already succeeded in producing the metal, is DESIROUS OF MEETING A CAPITALIST TO JOIN HIM in the commercial working of the process.—Address, "B. Y.," Mining Journal office, 26, Fleet-street, London, E.C.

**FIRE CLAY, &c.—AN OWNER OF LAND** within three miles of the Manchester Exchange is WISHFUL TO ARRANGE WITH A PARTY, or COMPANY, TO WORK some VALUABLE BEDS OF FIRE CLAY, of a very superior quality, which have recently been discovered under the estate, suitable for gas retorts, sanitary tubes, bricks, &c. There are no works of the kind in the district of any magnitude. The advertiser would be willing either to sell, lease, or assist in working the same.—For particulars, address to WILLIAM SINGLETON BIRCH, London-road Wharf, Manchester.

**NICKEL AND COBAL REFINING, AND GERMAN SILVER** WORKS, 16, OZZELL STREET NORTH, BIRMINGHAM.  
STEPHEN BARKER begs to inform the Trade that he has the following articles for sale:—

REFINED METALLIC NICKEL. OXIDE OF COBALT. [WIRE, &c.]  
REFINED METALLIC BISMUTH. GERMAN SILVER—IN INGOTS, SHEET  
NICKEL AND COBAL ORES PURCHASED.

**EAST INDIA COAL COMPANY (LIMITED).—NOTICE** IS HEREBY GIVEN, that the WARRANTS for the DIVIDEND declared at the general meeting of shareholders, held 8th December, 1858, will be DELIVERED on application at this office, on and after MONDAY next, the 21st inst., between the hours of Eleven and Two.—Gresham House, Old Broad-street, London, Feb. 18, 1859.

**CONSOLIDATED COPPER MINES OF COBRE.—NOTICE** IS HEREBY GIVEN, that a DIVIDEND of ONE POUND PER SHARE, free of income-tax, will be PAID to the holders of certificates in this company, at the offices of the association, Gresham House, Old Broad-street, on and after THURSDAY, the 24th February next, between the hours of Eleven and Three o'clock.  
The proprietors must leave their certificates for examination three clear days before the day of payment.  
WALTER SHARP, Directors of the Company.  
GEO. WHITMORE, Gresham House, Old Broad-street, January 25, 1859.

**THE BALLYMONEE COPPER AND SULPHUR MINING** COMPANY (LIMITED).—NOTICE IS HEREBY GIVEN, that the next HALF-YEARLY MEETING of the shareholders is appointed to be HELD at the company's offices, 87, New Bridge-street, Blackfriars, London, on FRIDAY, the 25th day of February instant, at Twelve o'clock in the forenoon.

**GREAT TREGUNE CONSOLS MINING COMPANY.**—A SPECIAL GENERAL MEETING of the shareholders will be HELD at the offices of the company, No. 8, New Broad-street, London, E.C., on TUESDAY, the 1st of March, at Twelve o'clock precisely, to receive important communications respecting the present favourable position of the mine, and on matters of finance.  
By order, CHARLES PEARSON, Sec.

**ENGLISH AND AUSTRALIAN COPPER COMPANY.**—NOTICE IS HEREBY GIVEN, that the ORDINARY GENERAL MEETING of the shareholders of this company will be HELD on MONDAY, the 21st day of February inst., at Two o'clock in the afternoon, at the London Tavern, Bishopsgate-street, London.  
By order, BENJAMIN WILKINS, Sec.

The directors report, to be presented at the above meeting, may be obtained on application at the company's offices.  
The transfer books of the company will be closed on Monday, the 21st day of February, and will re-open on Tuesday, the 8th day of March next.  
Offices, 16, Gracechurch-street, London, E.C., February 12, 1859.

**THE SCOTTISH AUSTRALIAN INVESTMENT COMPANY (LIMITED).—NOTICE IS HEREBY GIVEN, that a SPECIAL GENERAL** MEETING of the proprietors of the Scottish Australian Investment Company (Limited) will be HELD at the London Tavern, Bishopsgate-street, London, on FRIDAY, the 25th day of February inst., at Twelve o'clock at noon precisely, to consider the propriety of increasing, and, if deemed desirable, to increase, the capital stock of the said company by the creation and issue of a new preference stock, to such an amount, in such mode, and on such footing or terms, as may appear to the meeting to be expedient.  
By order of the Directors, C. GRAINGER, Sec.

24, Gresham-street, London, February 14, 1859.

**WEST HARTLEPOOL DOCK AND RAILWAY** COMPANY.—The ANNUAL GENERAL MEETING of the above company being fixed for the 25th inst., the UNDERSIGNED will then SUBMIT to the proprietors a RESOLUTION for the APPOINTMENT of a COMMITTEE of ENQUIRY. The undersigned seeks for no proxies, nor for support, from any shareholders until the day of meeting, when he will be prepared to show a case which he believes will make the appointment of a committee irresistible. Meanwhile, a report on the company's accounts, by Messrs. Gardner and Lovelock, public accountants, may be had on application.  
28, Threadenneedle-street, London. BENJAMIN COLEMAN.

**NEW PATENT ACT, 1852.—MR. CAMPIN,** having advocated Patent Law Reform before the Government and Legislature, and in the pages of the Mining Journal, &c., is now READY TO ADVISE AND ASSIST INVENTORS IN OBTAINING PATENTS, &c., under the NEW ACT.  
The Circular of Information, gratis, on application to the Patent Office and Designs Registry, 156, Strand.

**HUCKWORTHY BRIDGE MINE, NEAR HOBARRIDGE, DEVON.**

**TO BE SOLD, BY PRIVATE CONTRACT, SPARE** MATERIALS. One WATER-WHEEL, 36 feet high, 8 feet 6 inches breast, with crusher, drawing-machine, cast-iron axle for lifting 12 heads of stamps, with frame, &c., complete; 40 fms. launders and stands; 3 fms. wide; 135 fms. round rods; 35 fms. 2 in. square iron rods; 30 16 in. pulleys and stands; 2 tons of new and old iron; 1 large washing tank; 2 large jiggling butches; 1 hatch with frame, &c.; 2 kilns; 1 large ore shed, with wood floor; 4 trucks, with frame, &c.  
The above materials are very good, and may be seen on the mine, and further particulars obtained of Mr. W. E. COMBES, Mining Office, Tavistock.

**VALUABLE MINERAL PROPERTY, ESKDALE, NEAR WHITBY, YORKSHIRE.**

**FOR SALE, BY PRIVATE CONTRACT, a very VALUABLE** MINERAL PROPERTY in the above-named district, containing about TWO HUNDRED ACRES OF FREEHOLD LAND, in a good state of cultivation. The whole of the property contains the rich seams of ironstone of the Cleveland district, comprising the Avon and Pecten bands, and also the oolitic, through greater part of the property; together with cement stone, jet, and freestone, the position of the whole of which offers great facilities for working. The estate is intersected by the Whitby branch of the North-Eastern Railway, and affords capital sites for the erection of furnaces, the construction of which can be greatly facilitated by the superior freestone upon the property. For further particulars and plans of the property, apply to Mr. J. BOWLY, land surveyor, Whitby.

**COLLIERY TO BE SOLD.—TO BE SOLD, BY PRIVATE** CONTRACT, A COLLIERY IN FULL WORKING ORDER, having a present output of about 150 tons per day, which can be considerably increased, together with all TOOLS, RAILS, PLANT, COKE OVENS, &c., complete. This colliery is worked by means of levels, and is connected with the Taff Vale, Newport, Abercromby, and Hereford lines of railway, and is within 20 miles of the shipping port of Cardiff. For further particulars and to treat, apply to Mr. H. J. HOLLIER, solicitor; or to Mr. JOSEPH HENDERSON, civil and mining engineer, Aberdare, Glamorganshire.

**NEW ZEALAND.**

**FOR SALE, BY PRIVATE CONTRACT, THE ISLAND OF KAWAU.**

Affording an opportunity to the mounted speculator rarely met with. Kawau, which contains about 5000 acres, is of freehold tenure, and situated on the east coast of the Northern Island of New Zealand. It is distant some 30 miles to the westward of Auckland (the capital) and two miles from the mainland, and forms one of the principal landing points for vessels entering the Hauraki Gulf, or Frith of the Thames. The strait between it and the main land affords safe anchorage and favourable navigation for boats and small vessels, and the extensive natural harbour of Bon Accord, which runs about two miles into the centre of the island, is of sufficient depth and safety to shelter a considerable fleet of vessels. The island contains copper, and mining was formerly carried on to a considerable extent. There are numerous bays and inlets in the island, surrounded with luxuriant vegetation, supporting a large number of wild and tame cattle. Further particulars may be had, and offers in writing will be received, at the offices of the North British Australasian Company (Limited), to whom the property belongs. A royalty will be reserved on all minerals which may be found on the property.  
By order, DAVID BUDGE, Sec.  
27, New Broad-street, London, E.C., September 16, 1858.

**CARMARTHENSIRE, SOUTH WALES.**

**TO LET, the COAL, IRONSTONE, and FIRE-CLAY, under** lands in the GWENDRAETH VALLEY, SOUTH WALES, belonging to Lieut.-Colonel S. Cowell Stepany, consisting of SEVENTEEN SEAMS OF COAL, varying in thickness from 2 to 9 ft.; numerous SEAMS OF IRONSTONE, with ONE SEAM OF BLACK SAND, and 16 in. thick. The Gwendraeth Canal passes through the property, and leads to the South Wales Railway, as well as to the ports of Kidwelly and Pembrey, the latter port being about eight miles distant, and having a floating dock capable of accommodating vessels of 500 tons and upwards.—For further particulars and to treat, apply to CHARLES BENNETT, Esq., solicitor, 52, Lincoln's Inn-fields, London; or to WILLIAM ROSSER, Esq., mining engineer, Llanelly, South Wales.

**VALUABLE CANNEL AND COAL MINES,** NEAR CHORLEY, LANCASHIRE.—TO BE LET, the UNDERMENTIONED MINES OF CANNEL AND COAL, viz.:

The CANNEL MINE.  
The KING COAL.  
The YARD MINE.

Situated at Duxbury Park, near Chorley, in the county of Lancaster, containing upwards of 200 acres. These mines, having all been proved by shafts, and partially worked in other parts of the estate, are well worth the attention of any party who may be desirous of establishing a large colliery by means of a small outlay of capital.

The quality of the coal seams is excellent, the first in order, and very near the surface, being the well-known and justly celebrated Wigan Cannel, for which there is a great demand, at a high price, for gas purposes. The other seams combine all the qualities requisite for steam, house, iron, and coking purposes.

The property is well situated for easy and convenient transit for the coal, being intersected by the Lancaster Canal and the Lancaster and Yorkshire Railway, and within one mile of the London and North-Western Railway.

In addition to the present available outlets, the projected public line of railway from Blackburn to Wigan is designed to pass within 150 yards of the site most eligible for the sinking of shafts. The colliery will thus have convenient access to the ports of Liverpool, Fleetwood, &c., as well as to Manchester, Preston, Blackburn, Bolton, and other large manufacturing towns.

To treat for the above, application may be made to Mr. JOHN RAWES, agent, Duxbury Park; Mr. GEO. GILROY, mining engineer, Wigan; or to A. C. HOWDES, Esq., 3, Lotherbury, London, E.C.

**VALUABLE STEAM COLLIERY FOR SALE.**—The LESSEES of one of the most promising STEAM COLLIERIES in South WALES, surface area 600 acres, containing six distinct seams of coal, are PREPARED TO DISPOSE OF THEIR INTEREST IN THE LEASE, PLANT, live and dead stock, &c., on very easy terms to really influential parties, with a view to the formation of a joint-stock company, with an ample capital, and for which every facility will be given. Free shares in the new company would be taken for a very large portion of the consideration, and the balance may be paid in annuities spread over 10 or 12 years to come.

Upwards of £45,000 have been expended in opening out and carrying on the works to the extent of the present yield of 300 tons a day, with a progressive increase. The coal is advantageously known in the markets of Southern Europe, is classed in the lists of the Admiralty, the Government of India, and the Imperial French Marine, and is already extensively in use for locomotive engines on the railways in France.—Address, appointing an interview, J. D. BARRY, Esq., 45, Thurlow-square, Hrompton, S.W.

**WELSH STEAM COALS.—The ABERCARN COLLIERY** COMPANY are now PREPARED TO SUPPLY STEAM NAVIGATION and RAILWAY COMPANIES, MERCHANTS, and MANUFACTURERS with their new DEEP BLACK VEIN STEAM COAL. This magnificent coal combines all the requisites of a first-class steam coal, it possesses high evaporative power, entire freedom from sulphur and clinker, while its large size, hardness, and resistance to the action of the weather, peculiarly adapt it for the tropics or distant voyages, where it has to undergo much rough usage.—For price and terms, apply to the ABERCARN COLLIERY COMPANY, Newport, Monmouthshire.

**OLD RAILS.—MESSRS. SEWELL AND CO.** are instructed to BUY, in one or more lots, about 500 tons of light OLD FLAT BOTTOMED RAILS, not above 4 inches in depth. Offers, stating the lowest price, the port of delivery, and the section, addressed "JASON COMPANY," care of Messrs. Sewell and Co., 26, Nicholas-lane, E.C., will be received up to the 21st inst.—London, Feb. 12, 1859.

**OLD RAILS AND OTHER MATERIALS.—MESSRS. SEWELL** AND CO. are instructed to SELL, BY TENDER, and arrange for their delivery in this country, or at a continental port, the following OLD RAILWAY MATERIALS, in one or more lots, viz.:—About 500 tons of double-headed rails, 500 tons of bridge rails, 70 tons of ordinary rails, 30 tons of Lowmoor and bowing tiles, 10 tons of axles, and 200 tons of wrought, lump, and nut scrap. Offers, stating the quantities required, the time and place of delivery, and the mode of payment, addressed to "RAILWAY COMPANY," care of Messrs. Sewell and Co., 26, Nicholas-lane, E.C., will be received up to the end of this month.—London, Feb. 12, 1859.

**ENGINEERS' TOOLS.—FOR SALE, A SELF-ACTING SLIDE** LATHE, 11 in. centre and bed 12 ft. long, complete. AND TWO PORTABLE PUNCHING and CUTTING MACHINES, one suitable for 3/4 in. plates, and the other for 3/8 in. plates, both adapted for steam or hand power.—Apply to Messrs. PAGE and CAMERON, auctioneers and valuers, 61, Old Broad-street, E.C.

**STEAM ENGINES.—FOR SALE, a superior HIGH-PRESSURE** HORIZONTAL STEAM ENGINE, of 6 horse power, 8 in. cylinder, and 1 ft. 6 in. stroke. ONE of 8 horse power, 10 in. cylinder, and 1 ft. 6 in. stroke. ONE of 10 horse power, 12 in. cylinder, and 2 ft. stroke. TWO of 14 horse power, 14 in. cylinder, and 2 ft. stroke. AND ONE of 30 horse power, 20 in. cylinder, and 3 ft. stroke.—Apply to Messrs. PAGE and CAMERON, 61, Old Broad-street, London, E.C.

**STEAM ENGINE FOR SALE.—A 24 inch ROTARY** CONDENSING HORIZONTAL STEAM ENGINE FOR SALE, 6 ft. stroke in cylinder, heavy fly-wheel, drawing machine attached, and connection for pumping, with a 9 ton Cornish boiler, the whole in good condition.—Particulars may be had by applying to Messrs. NICHOLLS, WILLIAMS, and Co., Engineers, Tavistock.

Messrs. NICHOLLS, WILLIAMS, and Co. have always a good supply of SECOND-HAND MINE MATERIALS FOR SALE. Orders executed for new machinery and materials for the short notice, and of best quality. Machinery sent to all parts of the world, and able engineers to erect it.

**KENNINGTON AGRICULTURAL AND CHEMICAL** COLLEGE, LOWER KENNINGTON LANE, NEAR LONDON.

PRINCIPAL—J. C. NESBIT, F.G.S., F.C.S.

Youths intending to become Farmers, Land Stewards, Chemical and Manure Manufacturers, or Managers of Mining Property, will find the course of instruction in the College such as to fully qualify them for their respective pursuits. The terms for senior and junior students may be known on application to the Principal.

**ANALYTICAL AND ASSAY DEPARTMENT.**  
ANALYSES and ASSAYS of EVERY DESCRIPTION are PROMPTLY and ACCURATELY EXECUTED in the Laboratories of the College.

**ARTIFICIAL MANURES, &c.—MANUFACTURERS** AND OTHERS ENGAGED IN MAKING ARTIFICIAL MANURES MAY OBTAIN EVERY NECESSARY INSTRUCTION for their ECONOMIC and EFFICIENT PREPARATION by applying to J. C. NESBIT, F.G.S., &c., Principal of the Agricultural and Chemical College, Kennington, London. Analyses of Soils, Guano, Superphosphates of Lime, Coprolites, &c., and Assays of Gold, Silver, and other Minerals, are executed with accuracy and dispatch.

Gentlemen desirous of receiving instructions in Chemical Analysis and Assaying will find ample facility and accommodation at the College.

December has been specially taken to EDWIN MCKEAN.

PATENT STOCK at Great George's Carriage Co. Rugby Station. Vale Railway. Are requested.

UNIVERSITY SALE OF BANK SUPERIOR



## The Tavistock Ironworks.

## GILL AND CO'S PRICE LIST OF MINING MATERIALS.

CAST IRON.	Per cwt.	Flat rod shaves.	Per cwt.
Gudgeons, troughs, saddles, &c.	8s.	Tram wheels.	9s.
Ditto ditto, turned or fitted.	11s.	Ditto bored.	12s.
Centre pieces.	10s.	Railroad saddles, with wrought iron shanks.	7s.
Ditto bored.	9s.	Tappets.	8s.
Riser wheels and segments.	10s.	Bucking plates.	8s.
Ditto under 1 cwt.	10s.	Crushing rolls.	9s.
Ditto ditto bored.	12s.	Spindles for ditto.	9s.
Revel wheels and segments.	10s.	Boring working barrels, 6s. per in.	
Ditto under 1 cwt.	11s.	Turning plunger poles, 6s. 6d. p. in.	
Ditto ditto bored, extra.	2s.	Grate plates, cast close.	8s.
Cranks in green sand.	8s.	Coupling boxes.	8s.
Ditto in dry sand.	6s.	Brackets.	8s.
Ditto ditto bored, extra.	6s. 11s.	Rollers for flat rolls.	9s.
Hot water cylinders.	10s.	Engine castings generally, according to specification.	
Manhole branches and doors.	10s.		
Ditto faced.	13s.		
Fire bars, &c., cast close.	8s.		
Dampers and frames ditto.	8s.		
Plan pumps for ore.	7s. 6d.		
Ditto ditto for more.	8s.		
Ditto short lengths.	12s.		
Working barrels.	12s.		
H pieces and clack seat pieces under 4 ft. long.	9s. 6d.		
Clack seat pieces and doors.	9s.		
Plunger poles, 8 in. diameter and above.	20s.		
Ditto under 8 in.	22s.		
Stuffing boxes and glands.	17s.		
Valves, seats, and clacks.	10s.		
Whim shaves.	10s.		
Capstan shaves.	8s.		

For castings requiring new patterns, an additional charge to cover the cost thereof will be made. The company have a vast number of old patterns in store, for which no charge will be made.

Discount for cash payments within one month from date of invoice, 3 per cent. £3 per ton given for good scrap iron, delivered at the works.

## NEW AND EFFICIENT METHOD OF FEEDING BOILERS

OF LOCOMOTIVE, MARINE, AND STATIONARY STEAM ENGINES, by which a GAIN OF TWENTY-FIVE PER CENT. POWER is added to the engine, and a REDUCTION OF FIFTY PER CENT. CAUSED IN THE CONSUMPTION OF FUEL.

1.—By it the steam is completely condensed to a vacuum on the piston, by which there is a gain of 15 lbs. per square inch on the piston of locomotive engines, and 11 lbs. on the square inch of marine and stationary engines over the present method of condensing steam.

2.—A less pressure of steam is required in the boiler to produce the same effect, and consequently less fuel is required.

3.—The boiler is fed with the hot water from the condensed steam, and by this means, also, there is a great saving of fuel. Steam is generated from the hot water of condensed steam with less fuel and in less time than from water.

4.—The water from the condensed steam being returned into the boiler, when the boiler has been once filled it requires a very small supply of fresh water for a number of hours, and the burning of the boiler is much less.

5.—A less weight of water and fuel is required to go double the distance.

6.—By the complete condensation of the steam, all that noise is avoided which has hitherto prevented the running of locomotive engines over common roads, and constitutes the greater part of the nuisance of railway engines being put on common roads.

7.—The waste of steam is so little, that steam vessels may take a sufficient quantity of fresh water with them to go to America, India, or Australia, and thus explain away the prejudice of the salt water on the boilers, so that one boiler will last as long as four, besides the saving of the loss of time and expense in repairing and replacing boilers.

8.—By this method the feed pole and air pump bucket are rendered entirely useless, and the power employed to drive them is given to the engine, to do more useful duty.

9.—By this method, also, the explosion of boilers is rendered next to impossible.

10.—That with the 25 per cent. power being added to the engine, together with the reduction of 50 per cent. caused in the consumption of fuel, all railways will pay large dividends. The filtering beds in marine ships will also give place for general cargo and passengers, and the fact of the boilers being fed with fresh water is a sufficient reason to recommend its general adoption. The construction and simplicity of the apparatus is so inexpensive that it will cost a very small sum of money to be attached to any engine.

This invention is patented by Messrs. PARKER and THOMAS, of Chacewater, Cornwall.

## STEAM TO AUSTRALIA UNDER SIXTY DAYS.

PASSAGE MONEY £14 AND UPWARDS.

To the consignment of Bright Brothers and Co., Melbourne.

## BLACK BALL LINE OF BRITISH AND AUSTRALIAN

EX-ROYAL MAIL PACKETS AND EAGLE LINE OF PACKETS.

In conjunction with the celebrated auxiliary steam clipper GREAT BRITAIN and ROYAL CHARTER.

Appointed to sail punctually from LIVERPOOL on the 5th and 15th of each month.

The above, in addition to being the only line with steamers out of Liverpool, is composed of the LARGEST, FINEST, and FASTEST MERCHANT SHIPS IN THE WORLD.

Register. Burthen. Captain. Date.

BRITISH TRIDENT ..... 1555 ..... 3500 ..... O'NEILL ..... 5th March.

MONTMORENCY ..... 751 ..... 2500 ..... STONSON ..... 15th March.

DONALD M'KAY ..... 2004 ..... 5000 ..... TOWIN ..... To follow.

GREAT BRITAIN. INDIAN QUEEN.

ROYAL CHARTER. BRITISH TRIDENT.

LIGHTNING. GIPSEY BRIDE.

CHAMPION OF THE SEAS. GREAT TASMANIA.

DONALD M'KAY. COMMODORE PERRY.

MARCO POLO. METEOR.

EAGLE. MONTMORENCY.

SALDANHA.

The above celebrated steam and sailing clipper ships, forming the only lines honoured by a visit from Her Majesty the Queen, and so well known for their rapid passages, punctuality in sailing, and splendid accommodation unsurpassed by any ships in the world, will continue to sail regularly between Liverpool and Melbourne, thus affording to passengers and shippers the most unrivalled advantages. The commanders are men of experience, and noted for their kindness and attention to passengers.

The cabin accommodation is most superior, the saloons being elegantly furnished with every requisite to ensure comfort to passengers, and are supplied with beds, bedding, &c.

Parties wishing to bring their friends home from Australia, can obtain tickets for these ships leaving Australia every month.

Apply to GIBBS, BAIGANT, and Co., merchants, 1, North John-street, or to JAMES BAIGANT and Co., Tower-buildings, Liverpool; or to T. M. MACKAY and Co., 2, Moorgate-street, London, E.C.

## NOTICE.—THE WHITE STAR CLIPPERS, comprising the LARGEST, FINEST, and FASTEST CLIPPERS IN THE WORLD, will be dispatched punctually at noon of the 1st and 20th of every month.

## WHITE STAR LINE OF BRITISH AND AUSTRALIAN

EX-ROYAL MAIL PACKETS.

SAILING FROM

LIVERPOOL TO MELBOURNE, on the 1st and 20th of every month, and from MELBOURNE TO LIVERPOOL on the 1st of every month.

Passengers forwarded by steamers to ALL PARTS OF AUSTRALIA, TASMANIA, &c., at through rates.

Ship. Register. Burthen. Captain. Date.

SCOTTISH CHIEF ..... 1053 ..... 3500 ..... BUCHAN ..... March 1.

TUDOR ..... 1852 ..... 4500 ..... WHELAN ..... March 20.

RED JACKET ..... 2465 ..... 5000 ..... O'HALLORAN ..... April 1.

MERCHANT PRINCE ..... 1745 ..... 4500 ..... M'LAY ..... April 20.

MERMAID ..... 1329 ..... 4000 ..... JAMES WHITE ..... May 1.

WHITE STAR ..... 2360 ..... 5000 ..... KERR ..... May 20.

Passengers embark on the 18th and 31st March.

The packet of the 20th March will be the majestic three-decker, Tudor. This very noble vessel is now on her third voyage, and from the extraordinary improvements introduced into her construction and rig she is expected to surpass in speed even the splendid achievements of her former passages. She is of the very largest class, and from her unbroken deck-space of nearly 300 feet, and her ample capacity below, presents the most comfortable and enjoyable of passenger ships.

She made her only voyage to Melbourne in 77 days, and has carried 1100 troops from Liverpool to Bombay, landing them in the highest state of efficiency and health. Her saloons are extensive, and splendidly fitted up for the conveyance of passengers. Bed, bedding, and linen found. The Red Jacket will be dispatched on the 1st of April.

For freight or passage apply to the owners, H. T. WILSON and CHAMBERS, 21, Water-street, Liverpool; or to GIBBS, BAIGANT, and Co., 63, Cornhill, London; or to SEYMOUR, PARKER, and Co., 116, Fenchurch-street, London.

## AUSTRALIA AND THE NEW GOLD DIGGINGS.

THROUGH PASSAGE TO FITZROY RIVER AND MORETON

BAY, BY THE MERSEY LINE OF PACKETS, SAILING FROM

LIVERPOOL TO MELBOURNE, on the 25th of every month. The magnificent clipper, Captain Cook, 2500 tons burthen, is the packet of the 25th December. She has been in Her Majesty's transport service the last two years, having been specially selected on account of her extraordinary speed, which justifies the expectation that she will make the passage out under 70 days. Her second cabin in poop is unequalled by any ship on the berth, and the chief cabin is elegantly furnished. Apply to EDWARD TURNER and Co., 20, Water-street, Liverpool; or to their agent, Andrew McKean, 25, Lendenhall-street, London, E.C.

## PATENT LEVER BREAK, FOR RAILWAY WAGONS.

doing away with the objectionable break rack. Can be APPLIED TO EXISTING STOCK AT A TRIFLING EXPENSE. Royalty moderate. Models can be seen at 34, Great George-street, Westminster; and the breaks in action at the works of the Railway Carriage Company, at the Peterboro' Station, on the Eastern Counties Railway; the Rugby Station, London and North-Western Railway; the Cardiff Docks Station, Taff Vale Railway; and at the Works, Oldbury, near Birmingham, where all communications are requested to be sent.

## UNITED STATES OF AMERICA.—DUPEE, BECK, and

SAYLES, BOSTON, MASSACHUSETTS, BROKERS FOR THE PURCHASE AND SALE OF STATE, CITY, AND RAILROAD SECURITIES, MANUFACTURING, and BANK SHARES, give particular attention to the MINING COMPANIES OF LAKE SUPERIOR, and furnish reliable information concerning them.

[DUPEE, BECK, and SAYLES refer to the Editor of the Mining Journal.]

## RAILWAY WAGONS.—WILLIAM A. ADAMS AND CO.

MIDLAND WORKS, BIRMINGHAM.

BROAD AND NARROW GAUGE COAL AND IRONSTONE WAGONS.

IN STOCK—FOR SALE OR HIRE.

## THE RAILWAY CARRIAGE COMPANY.

OLDUBURY, NEAR BIRMINGHAM.

MANUFACTURERS OF EVERY DESCRIPTION OF RAILWAY PLANT AND IRONWORK.

NEW AND SECOND-HAND RAILWAY WAGONS ALWAYS IN STOCK FOR SALE OR HIRE.

LONDON OFFICES.—34, GREAT GEORGE STREET, WESTMINSTER.

## THE BIRMINGHAM WAGON COMPANY (LIMITED) HAS

RAILWAY WAGONS FOR HIRE.

Apply to the SECRETARY, 2, Newhall-street, Birmingham.

## YORKSHIRE TYRE AND AXLE WORKS, ROTHERHAM.

LOCOMOTIVE TYRE RABS OF EVERY DESCRIPTION, FOR ENGINES, CARRIAGES, AND RAILWAY WAGON WHEELS.

STEEL IRON for springs, MERCHANT AND OTHER IRONS MANUFACTURED BY WILLIAM F. BOYLE, Proprietor.

## SPRING HILL METAL, TUBE, AND ROLLING MILLS.

EYRE STREET, BIRMINGHAM.

GLYDON and SHORTHOUSE, MANUFACTURERS OF BRASS AND COPPER, LOCOMOTIVE, MARINE, GAS, BELL, AND OTHER TUBES. ROLLED METALS, BRASS SHEETS, BRASS AND COPPER WIRE, COPPER BOAT NAILS, RIVETS, WASHERS, &c. &c. GERMAN SILVER SHEETS, WIRE, &c. &c. ROLLED STEEL FOR CHINOLINE, PENS, SPRINGS, &c. &c. GENERAL ENGINEERS.

## CALVERT'S PATENT PROCESS FOR MAKING COKE AND IRON FREE FROM SULPHUR.

For LICENSES TO USE the above process, apply to ROBERT LONDON, Jun., 63, King-street, Manchester.

For APPLICATION OF the PATENT TO GAS WORKS, apply to Mr. GEORGE TRICKETT, Exchange Chambers, Manchester.

## MORRIS STIRLING'S PATENT CAST AND MALLEABLE IRON.

THE TOUGHENED CAST-IRON, FOR GIRDERS, SHAPINGS, ROLLS, FINIONS, RAILWAY WAGON WHEELS, ENGINE CYLINDERS, HYDRAULIC CYLINDERS, and for all purposes where a strong, dense iron is required, CAN BE PROCURED OF the following brands:—

DUNDYVAN. HORSLEY COMPANY. LLOYD, FOSTER, AND CO.

FORTH COMPANY. RUSSELL'S HALL, &c.

RAILS OF (OR SURFACED WITH) PATENT HARDENED IRON, CAN BE ORDERED direct from the following WORKS:—

PARKGATE. LLOYD, FOSTER, AND CO. CWM CELIN AND BLAIND.

HAWKS, CRAWSHAY, AND CO. MOWKLAND.

For durability, these rails have never been surpassed. They wear out several sets of ordinary rails, and do not laminate.

Full information, and terms for use of patent right, can be obtained of Messrs. CONNELL and HOPE, 3, Princess-street, Westminster; and of Mr. S. THORNTON, Bradford-street, Birmingham. Mr. THORNTON also receives orders for Mr. MORRIS STIRLING'S Patent Rails and Rails.

## MESSRS. R. &amp; J. COUPE, ENGINEERS AND IRONFOUNDERS,

MANUFACTURERS OF HORIZONTAL HIGH-PRESSURE STEAM ENGINES, from 10 to 200-horse power; the larger description of engines mounted with their IMPROVED EQUILIBRIUM SLIDE PISTON VALVE, which has proved itself so eminently adapted for winding and other engines.

Clayton Foundry, Wigan.

## CONDIE'S PATENT STEAM HAMMERS.

FIRST-CLASS STEAM HAMMERS, from 10 cwt. to 7 tons, suitable for jobbing forges, puddling forges, and the smiths' shops of engineers, ship-builders, wagon builders, railway companies, &c. Pressure of steam required, 25 lbs.

Govan Bar Ironworks, Glasgow. JOHN CONDIE.

## STEAM PUMPS, by JOHN CAMERON, SINGLE AND DOUBLE

ACTING, from 2½ to 12 inches, kept in stock. They are extensively used in the manufacturing districts for feeding boilers and raising water.—Works, Egerton-street, Hulme, Manchester.

## TO PREVENT ACCIDENTS BY WINDING OVER THE HEAD

GEAR, USE THE PATENT SELF-ACTING STEAM BREAK, which at every lift from the engine shuts off the steam from the winding engine and applies the break; also records the number of lifts made.—For illustrated circular and price, apply to HETH OGDEN, engineer, St. Mary's, Manchester.

## TO COLLIERY PROPRIETORS.—PATENT TIPPING

MACHINES, TO DIMINISH THE LOSS FROM BREAKAGE IN LOADING COAL ON RAILWAY WAGONS, SHIPS, &c.

ARTHUR AND JAMES RIGG, PATENTEES AND MAKERS, GEORGE STREET, CHESTER.

## SAFETY LAMP (W. WILKINS'S PATENT) FOR MINES,

SEWERS, GAS WORKS, GAS FITTERS, HOLDS OF SHIPS, and all purposes where danger from explosion of gas is to be apprehended. NO GAUZE TO INTERCEPT THE LIGHT. BURNS EIGHT HOURS FOR ONE PENNY, OF SIMPLE CONSTRUCTION, AND NOT LIKELY TO GET OUT OF ORDER. Price 20s.

Apply to Messrs. W. WILKINS AND CO., Lighthouse Engineers to the Honourable Corporation of Trinity House, 24 and 25, LONG ACRE, LONDON, W.C.

## TO COLLIERY PROPRIETORS.—TO PREVENT

EXPLOSIONS BY MINERS TAMPERING WITH SAFETY-LAMPS, USE ROBINSON'S AND OGDEN'S PATENT SELF-LOCKING LAMP, possessing the following advantages:—

1. THE GAUZE CANNOT BE REMOVED, except by the application of a fixed machine key.

2. SIMPLICITY OF LOCKING.

3. THE APPLICATION OF AN ENAMELLED REFLECTOR.

Further particulars will be forwarded on application to THOMAS ROBINSON and Co., brassfounders, Manchester; or to HETH OGDEN, engineer, Manchester.

## PATENT SAFETY FUSE.—THE GREAT EXHIBITION PRIZE

MEDAL WAS AWARDED TO THE MANUFACTURERS OF THE ORIGINAL SAFETY FUSE, BICKFORD, SMITH, DAVEY, and PRYOR, who beg to inform Merchants, Mine Agents, Railway Contractors, and all persons engaged in Blasting Operations, that, for the purpose of protecting the public in the use of a genuine article, the PATENT SAFETY FUSE has now a thread wrought into its centre, which, being patent right, infallibly distinguishes it from all imitations, and ensures the continuity of the gunpowder.

This Fuse is protected by a Second Patent, is manufactured by greatly improved machinery, and may be of any length and size, and adapted to every climate.

Address:—BICKFORD, SMITH, DAVEY, and PRYOR, Tuckingmill, Cornwall.

## TO ENGINEERS, CONTRACTORS OF RAILWAYS AND

OTHER EXTENSIVE WORKS, MINERS, COAL OWNERS, AND ALL OTHERS CONNECTED WITH BLASTING OPERATIONS.—MADE TO ORDER, OF ALL SIZES, COPELAND'S PATENT IMPROVED WATERPROOF SAFETY BLASTING CARTRIDGES, WARRANTED NOT TO MISS FIRE. Adapted for all purposes, such as tunnelling, submarine works, sinking wells, mining, &c.—Address, G. A. COPELAND, manufacturer, Constantine, near Falmouth.

## THE ONLY GAUGE GLASSES THAT WILL STAND A

PRESSURE FROM 100 lbs. TO 500 lbs.

Edinburgh, Perth, and Dundee, and Scottish Central Railways, Locomotive Department.—Perth, Dec. 20, 1856.

We have now used the Glass Tubes for Water Gauges, made by Mr. Toney, for three years, and can recommend them to railway engineers. I have not seen any equal to them.

ALEX. ALLAN, M. Inst. C.E., Locomotive Superintendent.

Are used on the London and North-Western, Eastern Counties, Midland, and all the principal railway lines in Great Britain. ENOCH TOMES, Canal-street, Perth.

## TO ENGINEERS, MILLWRIGHTS, MACHINISTS, &amp;c.

VULCANISED INDIA-RUBBER in any of the FOLLOWING FORMS, of any size, or to working drawings for all MECHANICAL PURPOSES:—

WASHERS for Steam and Gas Joints.

FIRE ENGINE AND FACTORY ROSE VALVES for Marine and other Steam-Engines.

ENGINE PACKING (Elastic).

PUMP BUCKETS (Elastic).

DRIVING ALL KINDS OF MACHINERY.

RAILWAY BUFFER SPRINGS.

BALL VALVES.

PUMP PACKING (Rings or Rope).

SUCTION HOSE.

WHEEL TYRES (Noiseless).

N.B. A large stock of the above always on hand, and any modification made to order. Please address all communications to the Manufacturer, JAMES LYNE HANCOCK, VULCANISED INDIA-RUBBER WORKS, GOSWELL ROAD, LONDON, E.C.

## GUTTA PERCHA BANDS, TUBING, &amp;c.

Our BANDS, carefully MANUFACTURED FROM THE VERY BEST GUTTA PERCHA only, are considerably CHEAPER, and, when fairly worked, are far more DURABLE than LEATHER. Can be had in lengths of 100 or 120 feet without a joint, are easily joined or repaired, and, when worn out, re-purchased by us at about one-third of their original cost. In the event of a break-down, a band of any size can be supplied within a few hours of receipt of order. The present prices are as under:—

Bands ½ in. thick and upwards to ½ in. .. 2s. 2d. per lb.

Bands above ½ in. thick .. 2s. 4d. per lb.

Subject to a liberal discount for cash, varying according to quantity. TUBING and other articles equally low. All our patented manufactures are to be obtained wholesale from our own works; retail from any of our dealers.

THE WEST HAM GUTTA PERCHA COMPANY.

West-street, Smithfield, London, E.C.

## THEODOLITES, LEVELS, CIRCUMFERENTERS,

MATHEMATICAL DRAWING INSTRUMENTS, SCALES, RULES, TAPES, SQUARES, &c.—JOHN ARCHBUTT, 20, WESTMINSTER BRIDGE ROAD, LAMBETH, near Astley's Theatre, respectfully calls attention to his stock of the above articles, manufactured by superior workmen. The prices will be found considerably lower than ever charged for articles of similar quality. An illustrated price list forwarded free on application: 8 in. dumpy level, complete, six guineas; 10 in. ditto, eight guineas; 14 in. ditto, ten guineas; with compass, one guinea each extra; best 5 in. theodolite, divided on silver, eighteen guineas.

## MORE STEAM, LESS FUEL, NO SMOKE.—

S.S. "Tonning," Victoria (London) Docks, Dec. 14, 1858.

Sir,—Since I wrote to you on the 11th September, we have made fifteen voyages, and from Tonnung with your PATENT REGULATING AIR DOORS, and with the same satisfactory results in increase of steam (20 per cent.), saving of fuel (15 per cent.), and prevention of smoke. We have never (as we used to have) any flame in the funnel, and the ventilation of the stoking room is so good that the firemen work with comfort in the hottest weather. The doors are as perfect as when first fitted.

I am, Sir, your obedient servant, FRANCIS REAY, Chief Engineer.

To Mr. J. Lee Stevens, 1, Fish-street-hill, E.C.

N.B.—The profit on 16 voyages, besides paying for the doors, exceeds £100.

## DOUBLY-DURABLE FIRE-BARS.—MR. LEE STEVENS

SUPPLIES, in his own or other patterns, DOUBLY-DURABLE FIRE-BARS, which are not liable to clinker, will withstand the utmost heat in furnaces of all kinds, and, price and wear considered, are the cheapest and best that are made.—For references and particulars, apply at the PATENT REGULATING AIR-DOOR OFFICES, 1, Fish-street-hill, E.C.

## MESSRS. KNOWLES AND BUXTON, CHESTERFIELD,

MANUFACTURERS OF PATENT TUBULAR TUYERES

Ordinary size, 16 in. long, 30s. each; extra ditto, 20 in. long, 35s. each; large ditto, 22 in. long, 40s. each; extra large ditto, 24 in. long, 45s. each; 1s. each extra for socket. Delivered at Chesterfield station. Terms, nett cash quarterly.

## HULL FORCE. BEST SCRAP.

ALLOTT AND THELWALL, HULL FORGE, HULL, are prepared to supply RIVET, BAR, NUT, and ANGLE IRON, SHAPINGS, FORGINGS, USES, &c., made entirely from scrap iron, on reasonable terms, and on the shortest notice. The superior quality of the Hull Forge iron is well known, and the brand extensively used where quality is of importance.—Hull Forge, Nov. 8, 1858.

## MINING STEAM ENGINES,

TO BE LET ON HIRE, OR FOR SALE, PATENT PORTABLE STEAM-ENGINES



## THE MINING SHARE LIST.

## DIVIDEND MINES.

Shares.	Mines.	Paid.	Nom.	Pr.	Bus.	done.	Last	Call.
5120	Alfred Conso (cop.), Phillack [S.E.]	2 11 0.	7	0.	0.	0.	Dec.	1858
10000	Bannaflyde (copper), Devon	0 12 6.	4	0.	0.	0.	May.	1858
4000	Bedford United (copper), Tavistock	2 6 5.	70	0.	0.	0.	7 1/2	1858
240	Boscon (tin), St. Just	20 10 0.	60	0.	0.	0.	Nov.	1858
200	Botallack (tin), St. Just	91 5 0.	205	0.	0.	0.	170 180	1858
1000	Carn Brea (copper), tin, Illogan	15 0 0.	72 1/2	0.	0.	0.	70 75	1858
300	Cefn Cwyrn (copper), Cardiganshire	23 0 0.	37	0.	0.	0.	1858	
12000	Copper Miners of England	23 0 0.	25	0.	0.	0.	1858	
25000	Ditto ditto (stock)	100 0 0.	25	0.	0.	0.	1858	
1005	Craddock Moor (copper), St. Cleer	8 0 0.	31	0.	0.	0.	29 30	1858
867	Cwm Erwin (lead), Cardiganshire	7 0 0.	14	0.	0.	0.	1858	
128	Cwmystwith (lead), Cardiganshire	60 0 0.	300	0.	0.	0.	1858	
4076	Devon and Cornwall (copper)	4 6 3.	12	0.	0.	0.	13 13 1/2	1858
1024	Devon Gt. Con. (cop.), Tavistock [S.E.]	1 0 0.	470	0.	0.	0.	465 475	1858
358	Dolcoath (copper), tin, Camborne	128 17 6.	300	0.	0.	0.	300	1858
300	East Launce (lead), Cardiganshire	32 0 0.	110	0.	0.	0.	1858	
128	East Pool (tin), Pool, Illogan	24 5 0.	175	0.	0.	0.	1858	
5700	Exmouth (silver-lead), Christow	4 14 0.	8	0.	0.	0.	1858	
1400	Eyan Mining Co. (lead), Derbyshire	5 0 0.	38	0.	0.	0.	1858	
2500	Foxdale, Isle of Man, Limited (st.)	25 0 0.	42	0.	0.	0.	1858	
486	Gambler and St. Aubyn (cop.) [S.E.]	54 15 0.	92 1/2	0.	0.	0.	90 95	1858
6000	Great South Tolgus [S.E.], Redruth	0 14 6.	13	0.	0.	0.	12 13	1858
1024	Herodshot (lead), near Liskeard	8 10 0.	75	0.	0.	0.	75 85 1/2	1858
160	Levant (copper), tin, St. Just	2 10 0.	100	0.	0.	0.	50 100	1858
400	Lisburne (lead), Cardiganshire, Wales	18 15 0.	100	0.	0.	0.	1858	
5000	Mendips Hills (lead), Somerset	3 15 0.	13	0.	0.	0.	1858	
1800	Minera Mining Co., Ltd. (id.), Wrexham	25 0 0.	115	0.	0.	0.	1858	
20000	Minning Co. of Ireland (cop., lead, coal)	7 0 0.	135	0.	0.	0.	1858	
470	Newtownards Mining Co., Co. Down	50 0 0.	35	0.	0.	0.	1858	
6000	N. Wh. Bassett (cop., tin), Illogan [S.E.]	54 15 0.	92 1/2	0.	0.	0.	90 95	1858
6400	Par Conso (cop.), St. Blazey [S.E.]	1 2 6.	17	0.	0.	0.	16 16 1/2	1858
200	Phanix (copper), tin, Liskeard	100 0 0.	420	0.	0.	0.	1858	
1772	Providence (tin), St. Agnes (Preferential)	20 13 2.	74	0.	0.	0.	71 73	1858
2500	Rhodesy and Bachelton (lead)	11 5 0.	12	0.	0.	0.	1858	
10000	Rhodesy and Bachelton (lead)	11 5 0.	12	0.	0.	0.	1858	
256	South Caradoc (cop.), St. Cleer [S.E.]	2 10 0.	425	0.	0.	0.	430 450	1858
256	South Garraff	26 0 0.	55	0.	0.	0.	50	1858
512	South Tolgus (cop.), Redruth, Cornwall	8 0 0.	76	0.	0.	0.	75 77 1/2	1858
496	South Wheal Frances, Illogan [S.E.]	18 18 0.	230	0.	0.	0.	220 230	1858
470	St. Ives Conso (tin), St. Ives	16 0 0.	70	0.	0.	0.	65 70	1858
6000	Tincroft (cop., tin), Pool, Illogan	5 0 0.	14	0.	0.	0.	14 1/2	1858
400	United Mines (copper), Gwennap	40 0 0.	122 1/2	0.	0.	0.	117 1/2 130	1858
512	Wendron Conso (tin), Wendron	23 7 8.	42	0.	0.	0.	37 1/2 42 1/2	1858
6000	West Bassett (copper), Illogan [S.E.]	1 10 0.	22	0.	0.	0.	20 21	1858
512	West Caradoc (cop.), Liskeard [S.E.]	10 0 0.	67 1/2	0.	0.	0.	65 67	1858
6400	West Fowey Conso (tin and copper)	7 10 0.	75	0.	0.	0.	75 77 1/2	1858
400	West Wheal Seton (cop.), Camborne	38 10 0.	335	0.	0.	0.	327 1/2 352 1/2	1858
240	Wheal Bal (tin), St. Just	15 0 0.	18	0.	0.	0.	15 18	1858
512	Wheal Bassett (copper), Illogan [S.E.]	18 18 0.	230	0.	0.	0.	220 230	1858
256	Wheal Bodinnog (copper), Camborne	107 0 0.	100	0.	0.	0.	110 120	1858
5120	Wheal Charlotte, Perranuthnoe	1 0 0.	8	0.	0.	0.	4 1/2	1858
128	Wheal Friendship (copper), Devon	50 0 0.	90	0.	0.	0.	1858	
1024	Wheal Grylls (tin), Perranuthnoe	0 4 0.	2	0.	0.	0.	5 6	1858
448	Wheal Margaret (tin), Ury Lel. [S.E.]	19 15 0.	85	0.	0.	0.	83 86	1858
500	Wheal Mary (tin), Lelant	7 4 6.	11	0.	0.	0.	1858	
1024	Wheal Mary Ann (id.), Menheniot [S.E.]	8 0 0.	48	0.	0.	0.	47 48	1858
80	Wheal Owles, St. Just, Cornwall	70 0 0.	300	0.	0.	0.	1858	
190	Wheal Seton (tin), Camborne	107 0 0.	100	0.	0.	0.	110 120	1858
1040	Wheal Trewartha (id.), Liskeard [S.E.]	4 10 0.	33	0.	0.	0.	31 32 1/2	1858
5000	Wicklow (copper), Wicklow	5 0 0.	42	0.	0.	0.	1858	

## MINES WITH DIVIDENDS IN ABEYANCE.

1624	Balteswidden (tin), St. Just	11 5 0.	5	0.	0.	0.	12 5 0.	0 5 0.	Jan.	1854
1200	Brightwell & Froggatt (copper), Derbyshire	3 0 0.	3 1/2	0.	0.	0.	3 0 0.	0 3 0.	April.	1856
100	Bryndall Hall (lead), Flintshire	25 0 0.	50	0.	0.	0.	25 0 0.	0 25 0.	July.	1856
1000	Bryndall, Llanidloes, Montgomeryshire	8 5 0.	11	0.	0.	10 1/2	0 5 0.	0 5 0	July.	1856
390	Budnick Conso (tin), Perran	2 2 6.	15	0.	0.	0.	0 10 0.	0 10 0	Mar.	1857
6000	Bulver (silver-lead), Cardiganshire	3 9 0.	1 1/2	0.	0.	0.	2 6 0.	2 6 0	Aug.	1856
4096	Caistock Conso (copper)	5 0 0.	4 1/2	0.	0.	0.	0 2 0.	0 2 0	Dec.	1856
2048	Camrorth (tin), St. Just	4 15 0.	4 1/2	0.	0.	0.	0 15 0.	0 3 0	June.	1856
2000	Collacomb (copper), Lanertons	5 0 0.	13	0.	0.	0.	3 5 0.	0 8 0	Dec.	1857
256	Conduarow (cop., tin), Camborne	20 0 0.	80	0.	0.	0.	85 0 0.	2 0 0	June.	1857
280	Derwent Mines (sil.-lead), Durham	300 0 0.	150	0.	0.	0.	122 0 0.	0 10 0	June.	1857
672	Ding Dong (tin), Guvul	35 5 0.	14	0.	0.	10 11	10 7 6.	1 10 0	Mar.	1857
12000	Drake Walls (tin, copper), Calstock	2 1 0.	1 1/2	0.	0.	28 30				

\* Dividends paid every two months. † Dividends paid every three months.

## FOREIGN MINES.

2464	Burra Barra (cop.), South Australia	5	0	0.	137	0.	140	0.	210	0	0.	0	0.	0	Dec.	1858	
12000	Cobre Copper Co. (cop.), Cuba [S.E.]	40	0	0.	40	0.	0.	33	40	0.	88	12	0.	1	0	Jan.	1859
10000	Copio Mining Company, Chili [S.E.]	16	0	0.	12	0.	10	12	0.	5	18	0.	0	10	0	Mar.	1859
15000	East Indian Coal, Calcutta [L.]	10	0	0.	10	0.	0.	7 1/2	0	7 1/2	0	0	0.	0	0	per cent.	Yearly.
70000	English and Australian [S.E.]	5	0	0.	13 1/2	0.	0.	0.	0	10	0.	0	2	6	0	Sept.	1858
25000	Gen. Mining Assoc., Nova Scotia [S.E.]	20	0	0.	20 1/2	0.	21	x d.	13	10	0.	0	17	6	0	July.	1859
15000	Linares (id.), Pozo Ancho, Spain [S.E.]	3	0	0.	9	0.	9	8 1/2	0.	0	6	0.	0	5	0	Jan.	1859
10000	Lustan (copper), South America [S.E.]	15	0	0.	1 1/2	dis.	1 1/2	dis.	0	8	0.	0	1	6	0	Jan.	1859
10000	Quintana Roo (copper), Mexico [S.E.]	1	0	0.	1	0.	0.	0	0	8	0.	0	1	6	0	Jan.	1859
100000	Port Phillip (gold), Clunes [S.E.]	1	0	0.	5 1/2	0.	5 1/2	0.	0	1	0	0.	0	1	0	Jan.	1859